



8165 E Kaiser Blvd. Anaheim, CA 92808
 p. 714.282.2270
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Report No: L101605114

Date: 12/1/2016



NVLAP LAB CODE 200927-0

Report No: L101605114

Prepared For: Number Eight Lighting Company
526 Portal Street, Cotati, CA 94931

Model Number: 803/J2-HI-40-XX/DIM1-8-1000/FS-P-1-WH

Test: Photometric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2008 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2008 Specification of the Chromaticity of Solid State Lighting Products
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Catalog number is 803/J2-HI-40-XX/DIM1-8-1000/FS-P-1-WH . Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 10/31/16

Date of Tests: 12/1/16 - 12/1/16

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Summary

Manufacturer:	Number Eight Lighting Company
Model Number:	803/J2-HI-40-XX/DIM1-8-1000/FS-P-1-WH
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	689.00
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.13
Input Power (W):	14.92
Input Power Factor:	0.98
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	46
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:55
Off State Power(W):	0.00

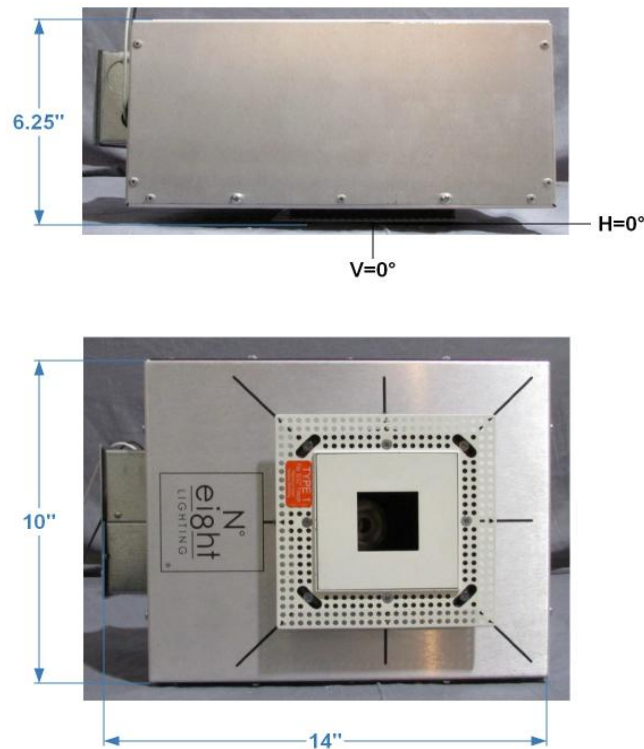


FIG.1 LUMINAIRE

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Dennis Malonzo

Test Report Released by:



Jeff Ahn
Engineering Manager

Test Report Reviewed by:



Steve Kang
Quality Assurance

**Attached are photometric data reports. Total number of pages: 10*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605114.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605114
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 12/1/2016
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 803/J2-HI-40-XX/DIM1-8-1000/FS-P-1-WH
 [LUMINAIRE] LED Recessed Adjustable 40° Beam Spread, 35° Aiming Angle, 1.75" x 1.75" Aperture Trim
 [BALLASTCAT] INTUITIVE SYSTEMS ISD-601-1050-15-D
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC,14.92
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	689
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	46
Total Luminaire Watts	14.92
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	3.10
Spacing Criterion (90-270)	0.74
Spacing Criterion (Diagonal)	1.48
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.15 ft
Luminous Width (90-270)	0.15 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	801980	168642	6083
55	475801	74995	2333
65	179655	19064	2262
75	1847	1847	3693
85	5484	5484	10968

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CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0.0	152	152	152	152	152	152	152	152	152	152
4.0	223	222	221	219	217	214	211	207	202	198
7.0	327	326	323	319	312	303	293	282	270	258
10.0	437	435	429	420	408	393	375	356	336	314
13.0	567	563	553	538	517	492	462	430	398	365
16.0	711	700	686	660	624	583	538	492	449	406
18.0	852	844	823	791	749	685	620	554	494	439
20.0	973	963	936	894	836	771	687	609	529	458
22.0	1087	1076	1046	996	927	847	721	651	560	479
24.0	1180	1169	1135	1083	1007	911	803	694	585	487
26.0	1261	1247	1211	1153	1072	972	849	705	601	495
28.0	1329	1314	1272	1209	1119	1006	875	715	606	488
30.0	1381	1365	1320	1253	1149	1041	900	721	603	481
32.0	1415	1399	1354	1280	1175	1048	897	719	587	457
33.0	1425	1409	1367	1288	1180	1048	899	717	575	450
34.0	1430	1415	1369	1292	1175	1053	892	706	562	436
35.0	1433	1419	1371	1291	1183	1040	881	701	546	423
36.0	1432	1416	1369	1282	1176	1029	867	691	528	403
37.0	1425	1409	1360	1278	1158	1016	834	672	510	388
38.0	1414	1397	1350	1264	1144	1000	761	644	492	378
40.0	1379	1362	1308	1217	1109	951	737	604	451	343
42.0	1326	1306	1251	1166	1046	890	712	546	409	300
44.0	1239	1218	1169	1091	976	762	642	483	361	267
46.0	1134	1116	1066	994	880	717	560	424	319	232
48.0	1022	1005	956	885	735	620	481	370	274	196
50.0	904	892	849	731	646	527	410	311	238	172
52.0	736	727	693	643	546	435	336	264	195	156
54.5	596	585	547	490	418	336	261	204	150	93
57.0	471	460	428	376	319	254	200	151	113	78
60.0	345	338	311	272	225	178	137	107	74	47
63.0	232	226	210	182	150	118	84	66	43	26
66.5	104	102	96	86	73	58	43	28	17	10
70.0	29	29	28	25	22	18	13	8	4	2
75.0	1	1	1	1	1	1	1	1	1	1
80.0	1	1	1	1	1	1	1	1	1	1
85.0	1	1	1	1	1	1	1	1	1	1
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0.0	152	152	152	152	152	152	152	152	152	152
4.0	193	187	182	177	171	166	161	155	150	146
7.0	244	231	217	202	189	177	165	153	144	134
10.0	291	267	246	222	202	182	164	147	133	120
13.0	332	300	269	238	208	182	159	139	121	107
16.0	362	320	285	247	212	183	153	130	112	96
18.0	385	334	292	247	210	180	144	119	101	84
20.0	401	343	291	246	204	176	136	112	91	74
22.0	407	343	291	237	195	170	125	101	77	66
24.0	413	342	280	229	184	143	114	91	71	57
26.0	406	331	272	215	175	133	104	78	63	49
28.0	401	322	255	202	167	119	105	71	54	41
30.0	382	302	241	184	152	107	79	62	47	35

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CANDELA TABULATION - (Cont.)

32.0	366	286	219	168	124	88	70	53	39	29
33.0	351	274	208	163	116	85	65	49	36	26
34.0	339	262	201	159	109	82	60	45	33	24
35.0	326	250	189	154	114	76	55	41	29	22
36.0	312	238	176	141	88	69	51	37	27	19
37.0	302	225	165	119	85	64	46	34	24	17
38.0	283	212	160	111	82	59	42	30	22	15
40.0	252	187	150	90	68	48	35	24	17	13
42.0	225	163	114	81	57	39	28	19	14	9
44.0	193	153	92	66	46	32	22	15	11	7
46.0	164	113	81	54	37	25	17	13	7	5
48.0	154	90	65	44	29	19	13	8	6	4
50.0	116	78	53	34	22	14	9	6	4	3
52.0	90	64	40	25	16	12	6	4	3	3
54.5	72	45	27	16	11	6	4	3	3	2
57.0	48	29	17	12	5	4	3	3	2	2
60.0	28	15	11	4	3	3	2	2	2	2
63.0	13	6	3	3	2	2	2	2	2	2
66.5	4	2	2	2	2	2	2	2	2	2
70.0	2	2	2	2	2	2	2	2	2	2
75.0	1	2	2	2	2	2	2	2	2	2
80.0	1	2	2	2	2	2	2	2	2	2
85.0	1	2	2	2	2	2	2	2	2	2
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles

Vert. Angles	100	105	110	115	120	125	130	135	140	145
0.0	152	152	152	152	152	152	152	152	152	152
4.0	141	136	132	128	124	120	117	115	112	110
7.0	124	116	109	103	97	92	87	83	80	77
10.0	109	99	90	83	76	71	66	61	58	54
13.0	94	83	74	66	59	54	49	44	41	38
16.0	82	71	62	54	48	42	38	34	30	28
18.0	71	60	51	43	37	32	28	25	22	20
20.0	62	52	43	36	30	26	22	19	17	14
22.0	53	43	36	29	25	20	17	15	12	10
24.0	45	37	30	24	19	16	13	11	9	7
26.0	38	30	24	19	16	12	10	8	6	5
28.0	32	25	20	16	12	9	7	5	4	3
30.0	27	20	15	12	9	7	5	4	3	2
32.0	22	16	13	9	7	5	4	3	2	2
33.0	20	15	10	8	6	4	3	3	2	2
34.0	18	14	9	7	5	4	3	2	2	1
35.0	16	11	8	6	4	3	3	2	2	1
36.0	15	10	7	5	4	3	2	2	2	1
37.0	14	9	6	5	4	3	2	2	1	1
38.0	11	8	5	4	3	3	2	2	1	1
40.0	8	6	4	3	3	2	2	2	1	1
42.0	6	5	4	3	2	2	2	1	1	1
44.0	5	4	3	3	2	2	2	2	1	1
46.0	4	3	3	2	2	2	2	1	1	1
48.0	3	3	2	2	2	2	2	1	1	1
50.0	3	2	2	2	2	2	2	1	1	1
52.0	3	2	2	2	2	2	2	1	1	1
54.5	2	2	2	2	2	2	2	1	1	1

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CANDELA TABULATION - (Cont.)

57.0	2	2	2	2	2	2	2	1	1	1
60.0	2	2	2	2	2	2	2	1	1	1
63.0	2	2	2	2	2	2	2	1	1	1
66.5	2	2	2	2	2	2	2	1	1	1
70.0	2	2	2	2	2	2	2	1	1	1
75.0	2	2	2	2	2	2	2	1	1	1
80.0	2	2	2	2	2	2	2	1	1	1
85.0	2	2	2	2	2	2	2	1	1	1
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0.0	152	152	152	152	152	152	152
4.0	108	106	105	104	103	103	103
7.0	74	72	70	69	68	67	67
10.0	52	49	48	46	45	45	44
13.0	35	33	32	30	30	29	29
16.0	25	24	22	21	20	20	20
18.0	18	16	15	14	13	13	13
20.0	13	11	10	9	9	9	8
22.0	9	8	7	6	5	5	5
24.0	6	5	4	4	3	3	3
26.0	4	3	3	2	2	2	2
28.0	3	2	2	2	1	1	1
30.0	2	2	1	1	1	1	1
32.0	1	1	1	1	1	1	1
33.0	1	1	1	1	1	1	1
34.0	1	1	1	1	1	1	1
35.0	1	1	1	1	1	1	1
36.0	1	1	1	1	1	1	1
37.0	1	1	1	1	1	1	1
38.0	1	1	1	1	1	1	1
40.0	1	1	1	1	1	1	1
42.0	1	1	1	1	1	1	1
44.0	1	1	1	1	1	1	1
46.0	1	1	1	1	1	1	1
48.0	1	1	1	1	1	1	1
50.0	1	1	1	1	1	1	1
52.0	1	1	1	1	1	1	1
54.5	1	1	1	1	1	1	1
57.0	1	1	1	1	1	1	1
60.0	1	1	1	1	1	1	1
63.0	1	1	1	1	1	1	1
66.5	1	1	1	1	1	1	1
70.0	1	1	1	1	1	1	1
75.0	1	1	1	1	1	1	1
80.0	1	1	1	1	1	1	1
85.0	1	1	1	1	1	1	1
90.0	0	0	0	0	0	0	0

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	80.89	N.A.	11.70
0-30	218.60	N.A.	31.70
0-40	404.95	N.A.	58.80
0-60	658.76	N.A.	95.60
0-80	687.59	N.A.	99.80
0-90	688.77	N.A.	100.00
10-90	672.58	N.A.	97.60
20-40	324.06	N.A.	47.00
20-50	490.08	N.A.	71.20
40-70	279.98	N.A.	40.60
60-80	28.82	N.A.	4.20
70-80	2.65	N.A.	0.40
80-90	1.18	N.A.	0.20
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	688.77	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	16.19
10-20	64.70
20-30	137.71
30-40	186.35
40-50	166.02
50-60	87.79
60-70	26.17
70-80	2.65
80-90	1.18
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

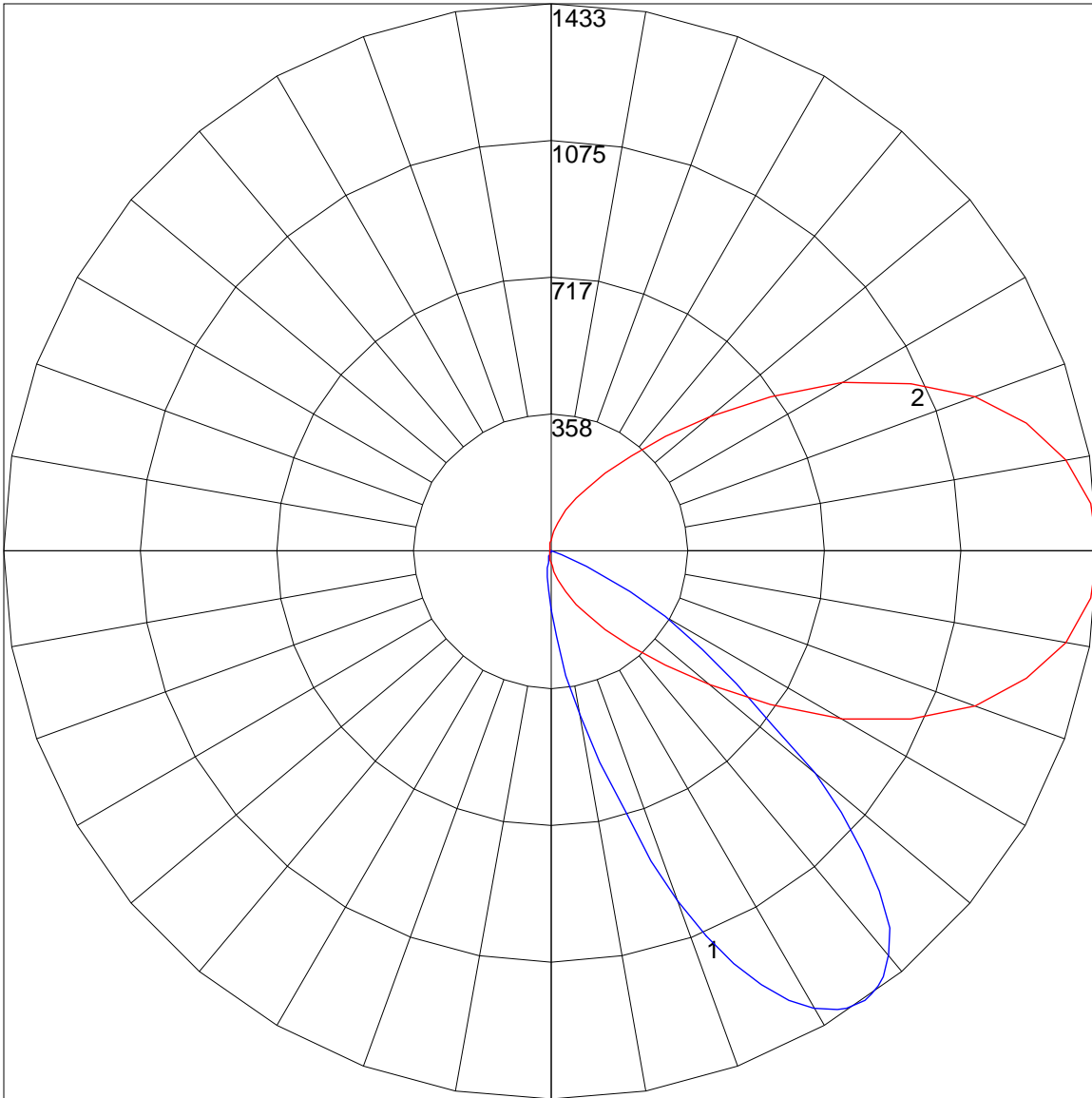
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	101	109	105	102	100	101	99	97	97	96	94	94	92	91	89
2	103	96	91	86	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78
3	95	86	79	74	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68
4	88	77	70	64	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59
5	81	70	62	56	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	75	63	55	49	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	70	57	49	43	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	52	44	39	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36
9	60	47	40	34	34	59	47	39	34	46	39	34	45	39	34	44	38	34	32
10	56	44	36	31	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29

POLAR GRAPH



Maximum Candela = 1433 Located At Horizontal Angle = 0, Vertical Angle = 35
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)