

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P345148

Luminaire Tested: **22CZ-39SE-L840-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345148  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-39SE-L840-HRP-UNV-CD1-U  
Description: CRUZE 2X2 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3567.5 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

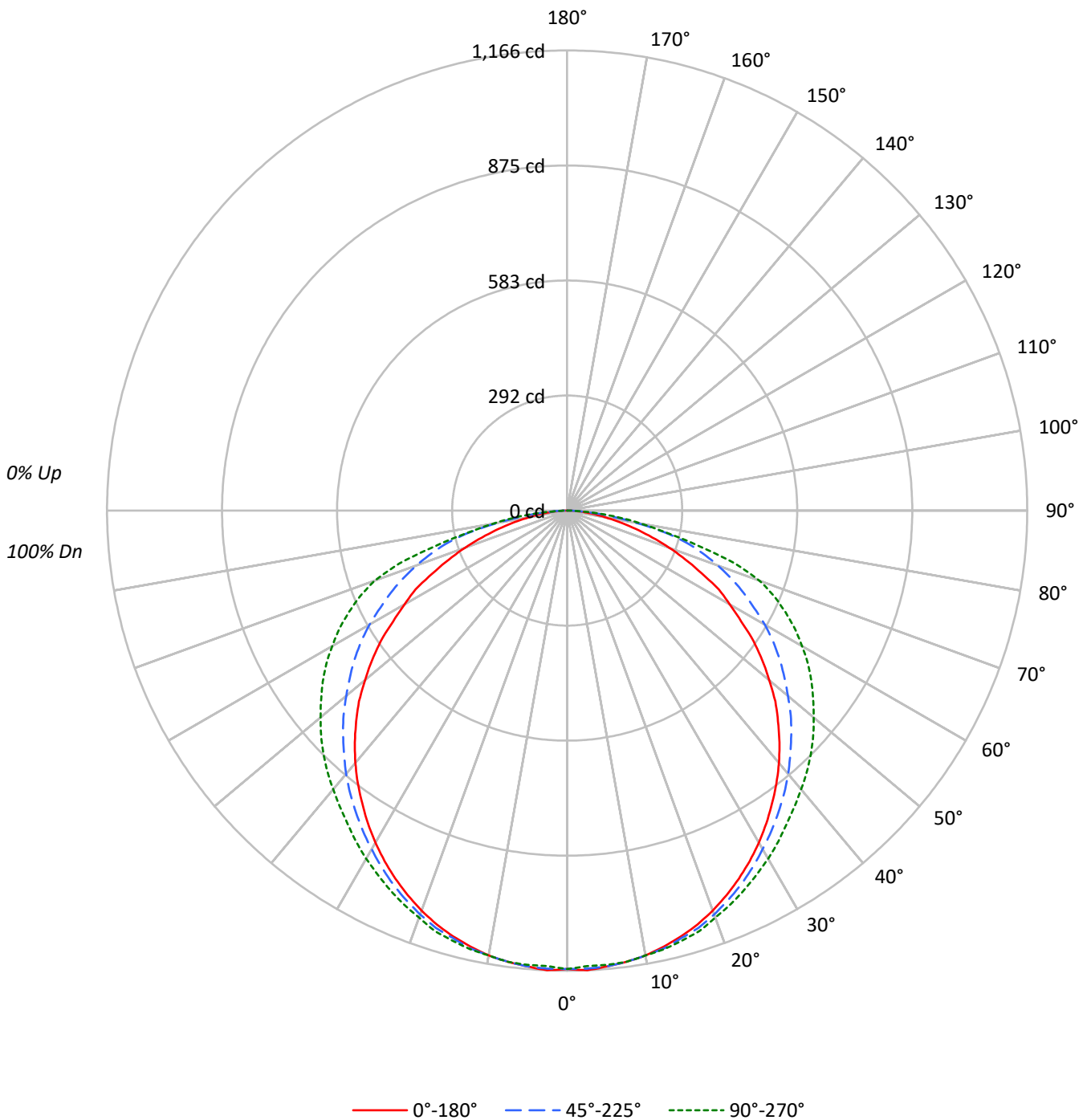
Input Watts (W): 34.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73		80	76	72		77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61		71	65	60		68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	52		63	56	51		60	55	50	48
5	75	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	44	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	32	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3126	3126	3126
5°	3132	3132	3121
10°	3128	3128	3128
15°	3111	3123	3141
20°	3088	3119	3143
25°	3056	3100	3151
30°	3019	3079	3165
35°	2974	3066	3185
40°	2933	3060	3241
45°	2877	3056	3324
50°	2798	3057	3415
55°	2705	3086	3546
60°	2563	3115	3701
65°	2393	3141	3889
70°	2168	3192	4083
75°	1865	3242	3575
80°	1522	2713	2946
85°	1254	1979	2177



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.1	3.1
10°-20°	316.7	8.9
20°-30°	481.5	13.5
30°-40°	585.9	16.4
40°-50°	624.1	17.5
50°-60°	590.3	16.5
60°-70°	486.6	13.6
70°-80°	299.3	8.4
80°-90°	73.1	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	908.3	25.5
0°-40°	1494.2	41.9
0°-60°	2708.6	75.9
0°-90°	3567.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3567.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1162	1162	1162	1162	1162	
5°	1160	1160	1160	1157	1155	110
15°	1117	1119	1121	1125	1128	315
25°	1029	1034	1044	1055	1061	474
35°	905	914	933	957	970	567
45°	756	769	803	848	873	583
55°	577	598	658	722	756	513
65°	376	412	493	572	611	373
75°	179	228	312	340	344	192
85°	41	53	64	68	70	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1161.7	1161.7	1161.7	1161.7	1161.7
2.5°	1165.9	1163.8	1161.7	1157.4	1155.3
5°	1159.5	1159.5	1159.5	1157.4	1155.3
7.5°	1153.1	1153.1	1153.1	1153.1	1153.1
10°	1144.6	1144.6	1144.6	1144.6	1144.6
12.5°	1131.8	1133.9	1136.0	1136.0	1138.2
15°	1116.8	1119.0	1121.1	1125.4	1127.5
17.5°	1099.7	1101.9	1108.3	1112.5	1116.8
20°	1078.4	1080.5	1089.1	1093.3	1097.6
22.5°	1054.9	1059.2	1067.7	1076.2	1080.5
25°	1029.3	1033.5	1044.2	1054.9	1061.3
27.5°	1001.5	1005.8	1018.6	1033.5	1039.9
30°	971.6	975.9	990.8	1007.9	1018.6
32.5°	939.6	946.0	963.1	984.4	995.1
35°	905.4	914.0	933.2	956.7	969.5
37.5°	871.2	879.8	903.3	931.0	946.0
40°	834.9	845.6	871.2	903.3	922.5
42.5°	796.5	809.3	837.1	875.5	899.0
45°	755.9	768.7	802.9	847.8	873.4
47.5°	715.4	730.3	768.7	817.9	845.6
50°	668.4	685.5	730.3	788.0	815.7
52.5°	623.5	644.9	694.0	755.9	785.8
55°	576.6	597.9	657.7	721.8	755.9
57.5°	523.2	548.8	619.3	687.6	723.9
60°	476.2	501.8	578.7	651.3	687.6
62.5°	433.5	457.0	533.9	612.9	651.3
65°	375.8	412.1	493.3	572.3	610.7
67.5°	324.6	365.2	450.6	525.3	568.0
70°	275.5	318.2	405.7	478.3	518.9
72.5°	226.4	273.3	360.9	424.9	446.3
75°	179.4	228.5	311.8	339.5	343.8
77.5°	136.7	185.8	252.0	249.8	254.1
80°	98.2	140.9	175.1	181.5	190.1
82.5°	66.2	98.2	113.2	123.9	132.4
85°	40.6	53.4	64.1	68.3	70.5
87.5°	19.2	21.4	21.4	17.1	17.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)