

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: P271996

Luminaire Tested: **22CZ2-39HE-UNV-L950-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P271996  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-39HE-UNV-L950-CD1-U  
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (196) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3563.0 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

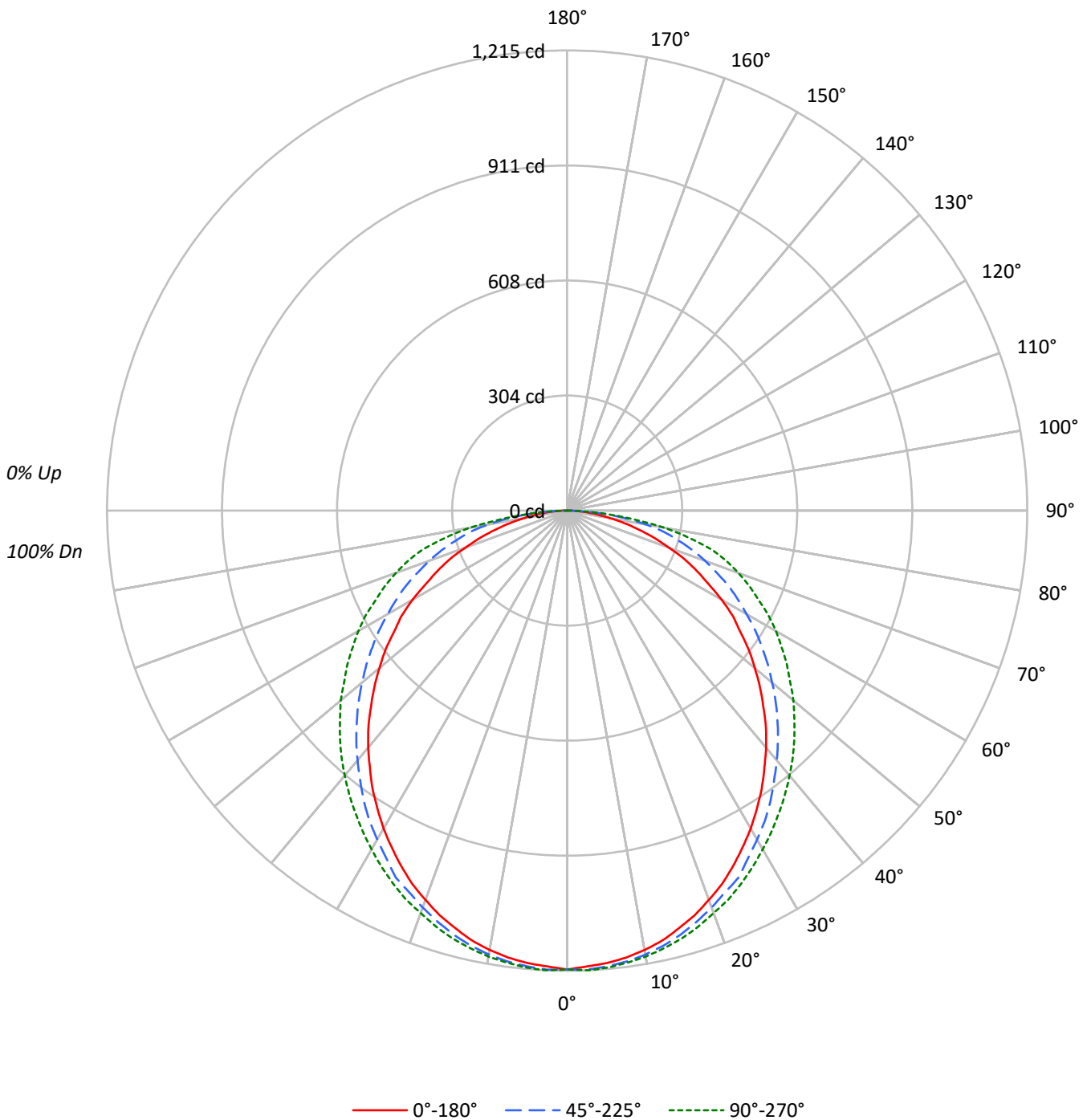
Input Watts (W): 30.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61		70	65	60		68	63	59	56
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	52	45	58	50	44		56	49	44		54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34		46	39	34		45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31		42	35	30		41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28		39	32	27		38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

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

	0°	45°	90°
0°	3260	3260	3260
5°	3239	3263	3273
10°	3219	3253	3267
15°	3180	3229	3258
20°	3133	3193	3238
25°	3077	3176	3227
30°	3013	3116	3209
35°	2943	3075	3202
40°	2870	3024	3209
45°	2789	2989	3229
50°	2708	2958	3266
55°	2616	2945	3323
60°	2538	2944	3425
65°	2411	2992	3550
70°	2249	3049	3780
75°	2060	3153	4083
80°	1793	3287	4021
85°	1568	2924	3193



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.6	3.2
10°-20°	326.3	9.2
20°-30°	489.9	13.7
30°-40°	585.4	16.4
40°-50°	608.7	17.1
50°-60°	564.2	15.8
60°-70°	462.8	13.0
70°-80°	312.8	8.8
80°-90°	98.3	2.8
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°	930.8	26.1
0°-40°	1516.2	42.6
0°-60°	2689.1	75.5
0°-90°	3563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3563.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1199	1201	1208	1210	1212	114
15°	1141	1147	1159	1166	1169	322
25°	1036	1045	1070	1082	1087	477
35°	896	908	936	964	975	560
45°	733	747	785	831	849	566
55°	558	575	628	684	708	501
65°	379	400	470	531	558	374
75°	198	231	303	365	393	210
85°	51	70	95	105	103	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1211.5	1211.5	1211.5	1211.5	1211.5
2.5°	1204.5	1208.0	1213.2	1215.0	1215.0
5°	1199.2	1201.0	1208.0	1209.7	1211.5
7.5°	1190.4	1194.0	1201.0	1202.7	1204.5
10°	1178.2	1181.7	1190.4	1194.0	1195.7
12.5°	1162.4	1165.9	1176.4	1181.7	1183.4
15°	1141.4	1146.6	1158.9	1165.9	1169.4
17.5°	1120.3	1125.6	1137.8	1148.4	1151.9
20°	1094.0	1106.3	1115.1	1129.1	1130.8
22.5°	1067.7	1074.7	1090.5	1104.5	1111.6
25°	1036.2	1044.9	1069.5	1081.7	1087.0
27.5°	1002.9	1015.1	1034.4	1053.7	1060.7
30°	969.5	978.3	1002.9	1025.6	1032.7
32.5°	932.7	945.0	971.3	994.1	1004.6
35°	895.9	908.2	936.2	964.3	974.8
37.5°	855.6	869.6	897.7	931.0	945.0
40°	817.0	827.5	860.8	901.2	913.4
42.5°	776.7	789.0	824.0	867.9	881.9
45°	732.9	746.9	785.4	831.0	848.6
47.5°	690.8	704.8	746.9	792.5	813.5
50°	646.9	664.5	706.6	759.2	780.2
52.5°	604.9	620.6	668.0	722.3	741.6
55°	557.5	575.1	627.7	683.8	708.3
57.5°	519.0	531.2	589.1	646.9	671.5
60°	471.6	487.4	547.0	608.4	636.4
62.5°	420.8	447.1	508.4	571.6	599.6
65°	378.7	399.7	469.9	531.2	557.5
67.5°	334.9	357.7	426.0	490.9	520.7
70°	285.8	315.6	387.5	452.3	480.4
72.5°	241.9	273.5	347.1	410.3	440.1
75°	198.1	231.4	303.3	364.7	392.7
77.5°	156.0	192.9	263.0	310.3	327.9
80°	115.7	150.8	212.1	245.5	259.5
82.5°	80.6	110.5	156.0	173.6	177.1
85°	50.8	70.1	94.7	105.2	103.4
87.5°	22.8	28.1	35.1	38.6	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)