

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: P294862

Luminaire Tested: **22CZ2-44HE-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P294862  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-HRP-UNV-L950-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
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: 3258.9 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

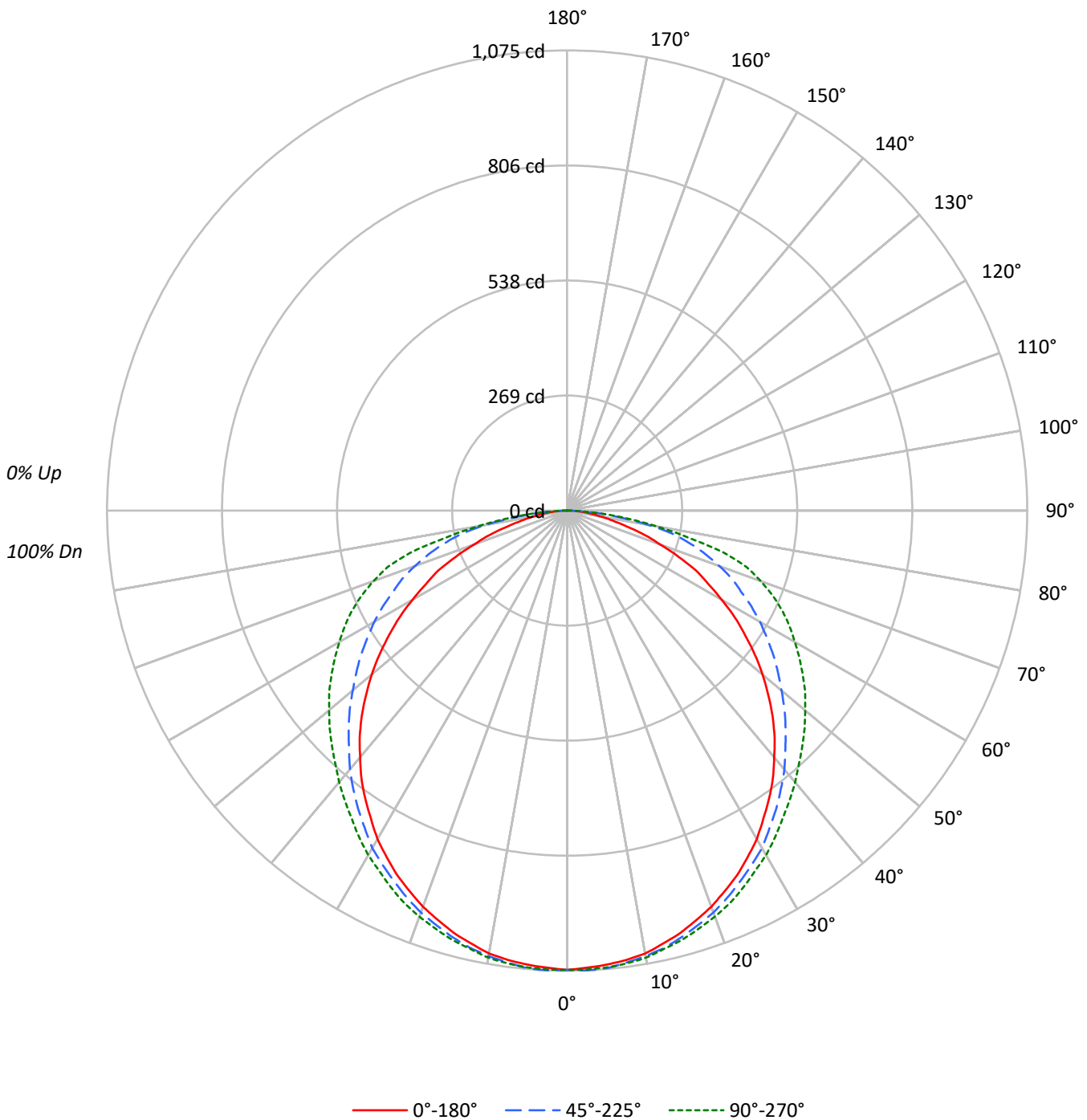
Input Watts (W): 35  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	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	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
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	31	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°	2888	2888	2888
5°	2877	2899	2893
10°	2870	2887	2899
15°	2846	2875	2892
20°	2820	2861	2891
25°	2790	2838	2887
30°	2753	2830	2887
35°	2701	2796	2884
40°	2643	2773	2910
45°	2582	2746	2957
50°	2496	2737	3038
55°	2382	2759	3154
60°	2246	2799	3308
65°	2120	2854	3535
70°	1811	2976	3785
75°	1518	3099	3933
80°	1243	2994	3281
85°	1078	2223	2411



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.7	3.1
10°-20°	290.9	8.9
20°-30°	440.9	13.5
30°-40°	532.4	16.3
40°-50°	559.4	17.2
50°-60°	526.4	16.2
60°-70°	438.9	13.5
70°-80°	290.8	8.9
80°-90°	77.5	2.4
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°	833.5	25.6
0°-40°	1365.9	41.9
0°-60°	2451.7	75.2
0°-90°	3258.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3258.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1065	1067	1073	1073	1071	101
15°	1022	1026	1032	1036	1038	288
25°	940	946	956	968	972	433
35°	822	830	851	870	878	514
45°	678	689	722	759	777	523
55°	508	530	588	648	672	454
65°	333	362	448	522	555	324
75°	146	204	298	360	378	158
85°	35	54	72	78	78	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1073.1	1073.1	1073.1	1073.1	1073.1
2.5°	1069.0	1071.1	1075.2	1075.2	1073.1
5°	1064.9	1067.0	1073.1	1073.1	1071.1
7.5°	1058.7	1060.8	1064.9	1069.0	1067.0
10°	1050.5	1052.6	1056.7	1060.8	1060.8
12.5°	1036.1	1038.2	1046.4	1048.5	1048.5
15°	1021.7	1025.8	1032.0	1036.1	1038.2
17.5°	1003.2	1007.3	1015.6	1023.8	1023.8
20°	984.7	988.8	999.1	1007.3	1009.4
22.5°	962.1	968.3	978.6	988.8	993.0
25°	939.5	945.7	955.9	968.3	972.4
27.5°	912.8	918.9	933.3	947.7	949.8
30°	886.0	892.2	910.7	923.1	929.2
32.5°	853.2	861.4	879.9	898.4	904.6
35°	822.3	830.5	851.1	869.6	877.8
37.5°	789.4	797.6	820.3	842.9	853.2
40°	752.4	762.7	789.4	814.1	828.5
42.5°	717.5	727.8	754.5	787.4	801.8
45°	678.4	688.7	721.6	758.6	777.1
47.5°	637.3	649.6	688.7	733.9	752.4
50°	596.2	610.6	653.7	705.1	725.7
52.5°	553.0	571.5	620.9	676.4	701.0
55°	507.8	530.4	588.0	647.6	672.2
57.5°	464.6	485.2	553.0	616.7	643.5
60°	417.3	444.1	520.1	585.9	614.7
62.5°	372.1	400.9	485.2	555.1	585.9
65°	333.0	361.8	448.2	522.2	555.1
67.5°	281.6	320.7	417.3	487.2	520.1
70°	230.2	283.7	378.3	450.2	481.1
72.5°	191.2	242.6	339.2	411.2	439.9
75°	146.0	203.5	298.1	359.8	378.3
77.5°	109.0	168.6	254.9	285.8	287.8
80°	80.2	129.5	193.2	203.5	211.7
82.5°	55.5	90.5	125.4	137.7	141.9
85°	34.9	53.5	72.0	78.1	78.1
87.5°	18.5	20.6	24.7	24.7	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)