

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: P295079

Luminaire Tested: **24CZ2-75HE-HRP-UNV-L930-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: P295079  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75HE-HRP-UNV-L930-CD1-U  
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (392) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4853.2 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

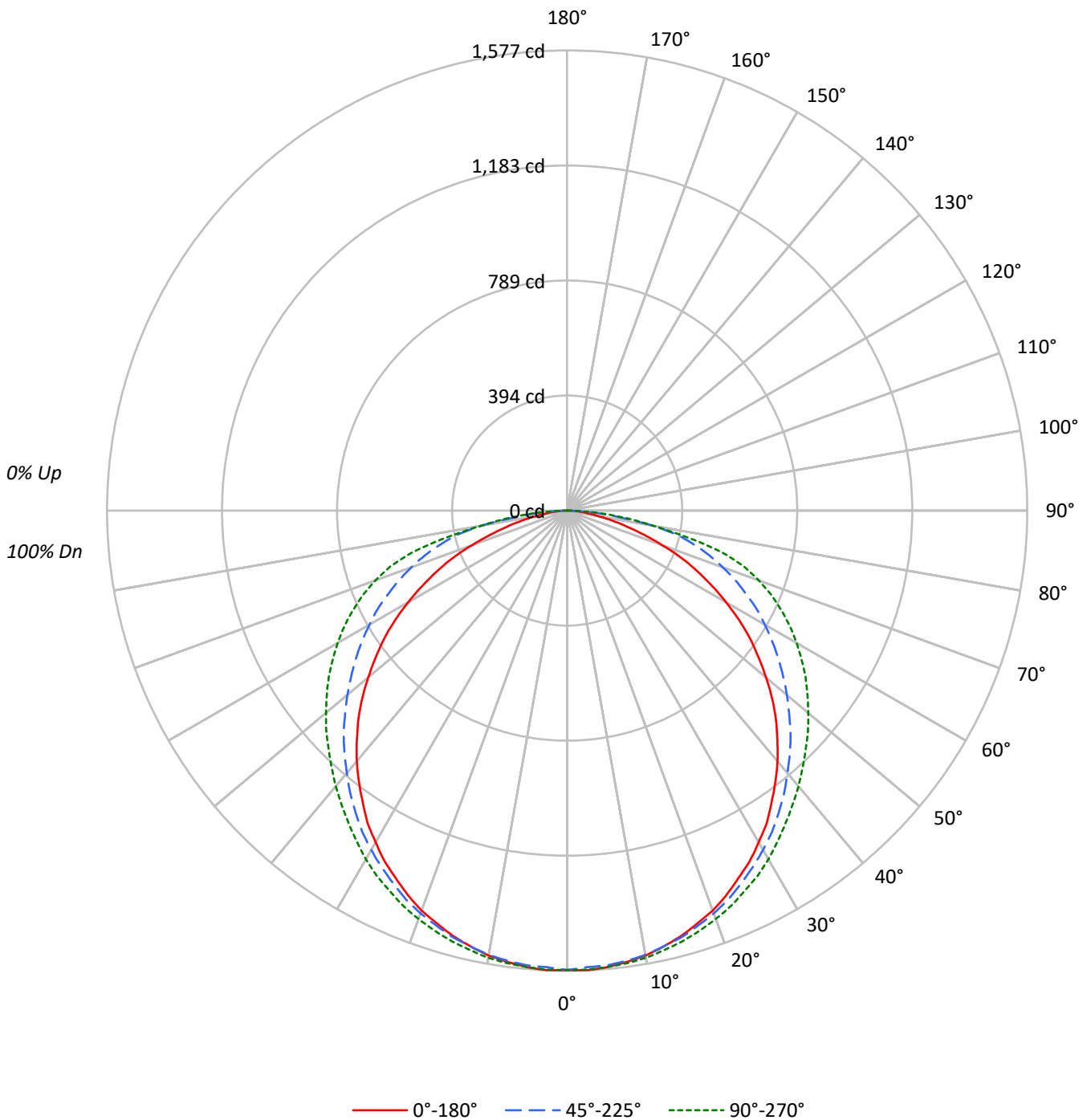
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

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

	0°	45°	90°
0°	2119	2119	2119
5°	2121	2113	2121
10°	2115	2112	2126
15°	2103	2109	2128
20°	2089	2103	2132
25°	2063	2093	2136
30°	2039	2087	2143
35°	2006	2076	2146
40°	1970	2063	2166
45°	1925	2061	2200
50°	1863	2058	2258
55°	1797	2073	2340
60°	1695	2105	2444
65°	1565	2154	2581
70°	1367	2230	2749
75°	1109	2345	2841
80°	819	2298	2298
85°	627	1694	1913



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.2	3.1
10°-20°	428.4	8.8
20°-30°	652.1	13.4
30°-40°	791.8	16.3
40°-50°	836.5	17.2
50°-60°	789.4	16.3
60°-70°	656.3	13.5
70°-80°	431.8	8.9
80°-90°	117.7	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°	1229.6	25.3
0°-40°	2021.4	41.7
0°-60°	3647.4	75.2
0°-90°	4853.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4853.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1575	1575	1575	1575	1575	
5°	1571	1571	1564	1571	1571	149
15°	1510	1512	1514	1528	1528	426
25°	1390	1398	1410	1434	1438	641
35°	1221	1235	1264	1296	1306	764
45°	1012	1032	1083	1136	1156	779
55°	766	798	884	967	998	682
65°	492	549	677	776	811	486
75°	213	311	451	534	546	230
85°	41	89	110	122	124	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1574.6	1574.6	1574.6	1574.6	1574.6
2.5°	1576.7	1574.6	1566.5	1574.6	1574.6
5°	1570.6	1570.6	1564.5	1570.6	1570.6
7.5°	1560.4	1560.4	1556.3	1564.5	1564.5
10°	1548.2	1548.2	1546.2	1556.3	1556.3
12.5°	1529.9	1532.0	1529.9	1542.1	1542.1
15°	1509.6	1511.6	1513.7	1527.9	1527.9
17.5°	1483.2	1487.3	1491.3	1507.6	1509.6
20°	1458.8	1460.8	1469.0	1487.3	1489.3
22.5°	1426.3	1432.4	1442.6	1460.8	1466.9
25°	1389.7	1397.9	1410.0	1434.4	1438.5
27.5°	1355.2	1361.3	1377.5	1404.0	1412.1
30°	1312.5	1322.7	1343.0	1369.4	1379.6
32.5°	1271.9	1282.0	1306.4	1334.9	1343.0
35°	1221.1	1235.3	1263.8	1296.3	1306.4
37.5°	1172.3	1186.6	1221.1	1257.7	1269.9
40°	1121.5	1137.8	1174.4	1217.0	1233.3
42.5°	1066.7	1089.0	1129.7	1176.4	1194.7
45°	1011.8	1032.1	1082.9	1135.8	1156.1
47.5°	952.9	977.3	1032.1	1095.1	1119.5
50°	889.9	920.4	983.4	1052.5	1078.9
52.5°	826.9	861.5	932.6	1009.8	1038.2
55°	766.0	798.5	883.8	967.1	997.6
57.5°	698.9	739.6	833.0	922.4	952.9
60°	629.8	674.5	782.2	875.7	908.2
62.5°	560.8	611.6	733.5	826.9	861.5
65°	491.7	548.6	676.6	776.1	810.7
67.5°	424.6	487.6	623.8	723.3	757.8
70°	347.4	426.7	566.9	664.4	698.9
72.5°	276.3	367.7	512.0	603.4	633.9
75°	213.3	310.9	451.1	534.4	546.5
77.5°	156.4	254.0	388.1	416.5	418.5
80°	105.7	203.2	296.6	292.6	296.6
82.5°	69.1	152.4	186.9	209.3	211.3
85°	40.6	89.4	109.7	121.9	123.9
87.5°	20.3	30.5	38.6	40.6	44.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)