

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: P294787

Luminaire Tested: **14CZ2-20-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: P294787
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-HRP-UNV-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

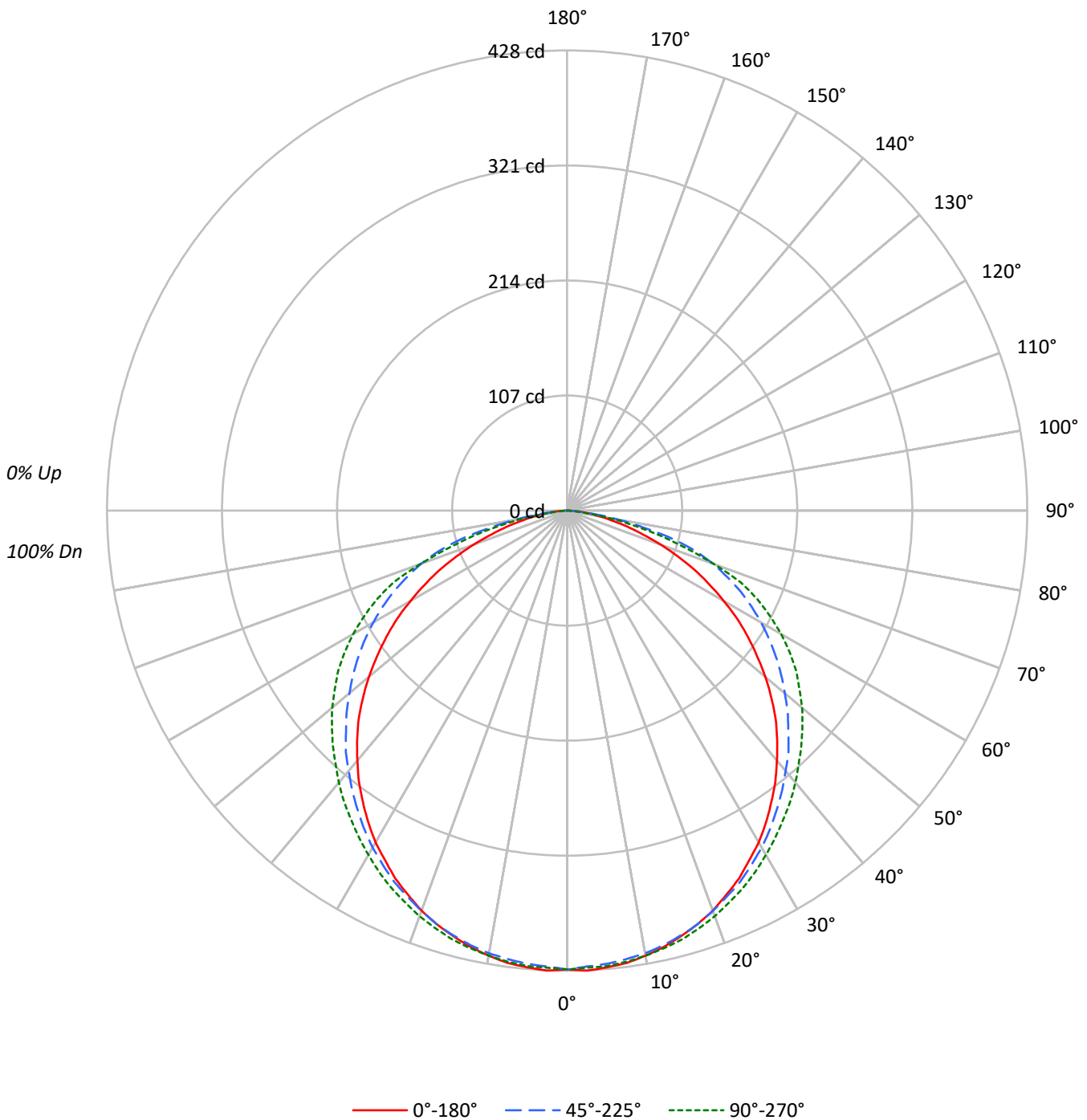
Lumens per Lamp: N/A
Luminaire Lumens: 1256.6 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.3
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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1148	1148	1148
5°	1152	1143	1149
10°	1149	1142	1149
15°	1142	1139	1150
20°	1134	1135	1150
25°	1122	1131	1150
30°	1107	1125	1149
35°	1088	1116	1151
40°	1066	1110	1160
45°	1044	1107	1173
50°	1007	1106	1194
55°	964	1112	1220
60°	906	1121	1236
65°	835	1132	1243
70°	728	1135	1144
75°	600	1056	924
80°	471	759	618
85°	367	293	145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	3.2
10°-20°	115.9	9.2
20°-30°	176.0	14.0
30°-40°	213.3	17.0
40°-50°	224.8	17.9
50°-60°	209.9	16.7
60°-70°	167.7	13.3
70°-80°	92.3	7.3
80°-90°	16.3	1.3
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°	332.4	26.5
0°-40°	545.7	43.4
0°-60°	980.3	78.0
0°-90°	1256.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	426	425	423	426	425	41
15°	410	410	409	413	413	116
25°	378	378	381	386	387	174
35°	331	334	340	348	350	207
45°	274	279	291	304	308	211
55°	206	216	237	254	260	183
65°	131	148	178	192	195	129
75°	58	83	102	91	89	62
85°	12	15	10	6	5	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	426.7	426.7	426.7	426.7	426.7
2.5°	428.3	427.1	424.4	426.7	425.6
5°	426.4	425.2	423.2	426.0	425.2
7.5°	424.4	422.8	420.8	424.0	423.2
10°	420.4	419.2	418.1	420.8	420.4
12.5°	415.7	415.3	414.1	417.3	416.9
15°	409.8	409.8	409.0	412.9	412.9
17.5°	403.4	403.0	403.4	407.8	407.4
20°	395.9	395.9	396.3	401.5	401.5
22.5°	386.8	387.2	388.4	394.7	394.3
25°	377.8	378.5	380.9	386.4	387.2
27.5°	366.7	368.7	371.4	378.1	378.9
30°	356.4	357.6	361.9	368.3	369.8
32.5°	344.2	346.5	351.3	358.4	360.4
35°	331.1	334.3	339.8	348.5	350.5
37.5°	318.1	320.9	328.4	337.4	341.0
40°	303.5	308.2	316.1	326.4	330.3
42.5°	289.2	294.0	304.7	315.3	318.9
45°	274.2	279.4	290.8	303.9	308.2
47.5°	257.6	263.6	278.2	292.0	296.7
50°	240.6	248.1	264.3	279.8	285.3
52.5°	222.9	232.3	250.9	267.1	272.3
55°	205.5	215.7	237.1	253.7	260.0
57.5°	187.7	198.8	222.9	241.8	245.4
60°	168.3	181.8	208.2	224.8	229.6
62.5°	149.4	164.8	193.2	209.0	213.0
65°	131.2	147.8	177.8	192.4	195.2
67.5°	111.4	131.2	160.8	174.3	175.0
70°	92.5	115.4	144.2	150.5	145.4
72.5°	73.9	98.4	124.9	119.7	115.4
75°	57.7	82.6	101.6	91.3	88.9
77.5°	42.7	67.6	72.7	67.2	62.8
80°	30.4	53.3	49.0	41.9	39.9
82.5°	20.9	33.6	26.9	20.9	18.2
85°	11.9	15.0	9.5	5.9	4.7
87.5°	5.1	3.6	2.0	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)