

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: P294825

Luminaire Tested: **22CZ2-20HE-HRP-UNV-L940-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: P294825
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: 22CZ2-20HE-HRP-UNV-L940-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1405.8 lumens
Efficiency: N/A
Efficacy: 87.9 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

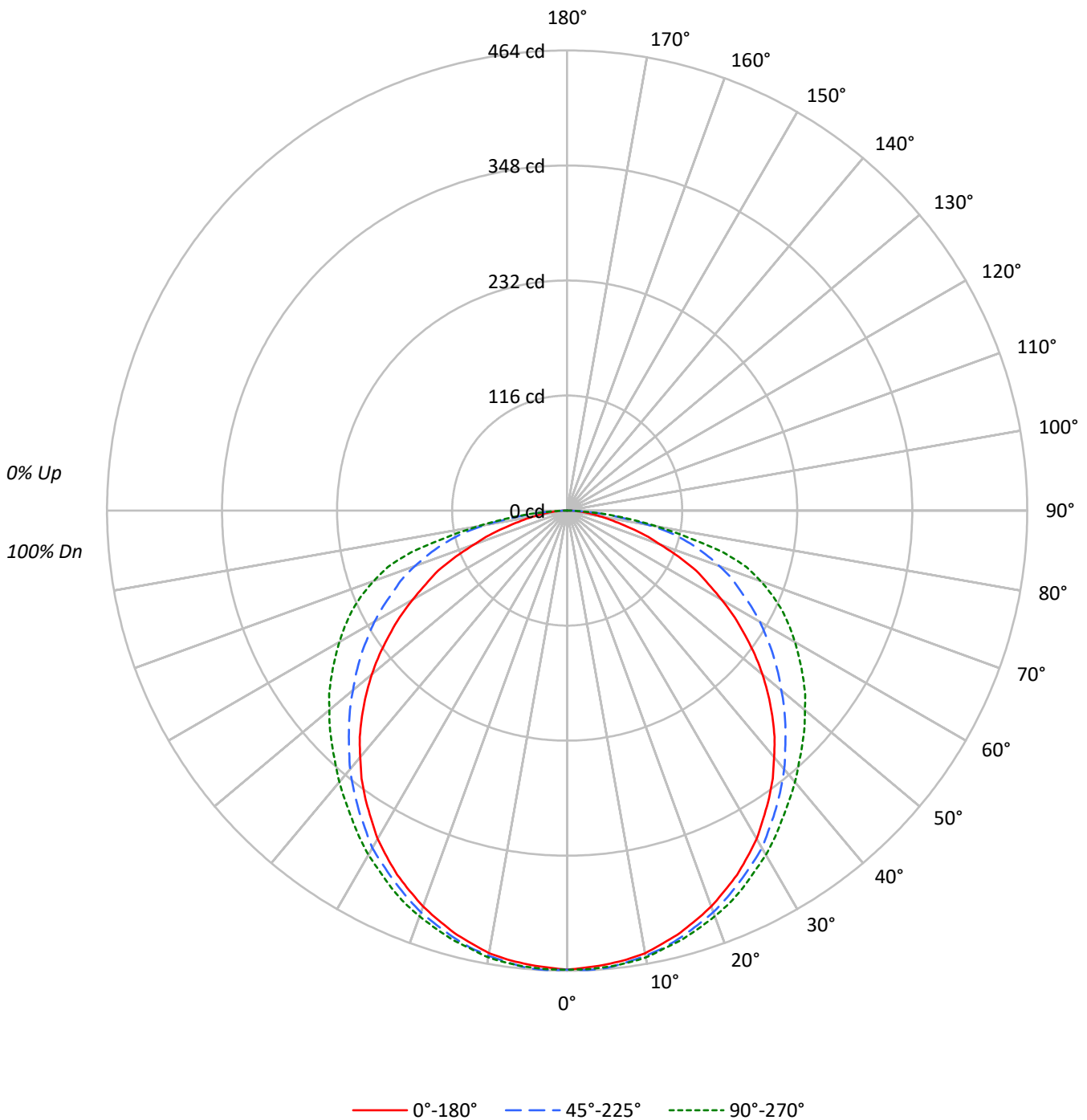
Input Watts (W): 16
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1246	1246	1246
5°	1241	1250	1248
10°	1238	1245	1250
15°	1228	1240	1248
20°	1216	1234	1247
25°	1203	1224	1246
30°	1188	1221	1245
35°	1165	1206	1244
40°	1140	1196	1255
45°	1114	1185	1276
50°	1077	1181	1310
55°	1027	1190	1361
60°	969	1208	1427
65°	915	1231	1524
70°	781	1284	1633
75°	655	1337	1697
80°	536	1292	1415
85°	466	957	1041



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	3.1
10°-20°	125.5	8.9
20°-30°	190.2	13.5
30°-40°	229.7	16.3
40°-50°	241.3	17.2
50°-60°	227.0	16.2
60°-70°	189.3	13.5
70°-80°	125.5	8.9
80°-90°	33.4	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°	359.6	25.6
0°-40°	589.2	41.9
0°-60°	1057.6	75.2
0°-90°	1405.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1405.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	459	460	463	463	462	44
15°	441	442	445	447	448	124
25°	405	408	412	418	420	187
35°	355	358	367	375	379	222
45°	293	297	311	327	335	225
55°	219	229	254	279	290	196
65°	144	156	193	225	239	140
75°	63	88	129	155	163	68
85°	15	23	31	34	34	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	462.9	462.9	462.9	462.9	462.9
2.5°	461.1	462.0	463.8	463.8	462.9
5°	459.4	460.2	462.9	462.9	462.0
7.5°	456.7	457.6	459.4	461.1	460.2
10°	453.2	454.0	455.8	457.6	457.6
12.5°	446.9	447.8	451.4	452.3	452.3
15°	440.7	442.5	445.2	446.9	447.8
17.5°	432.8	434.5	438.1	441.6	441.6
20°	424.8	426.5	431.0	434.5	435.4
22.5°	415.0	417.7	422.1	426.5	428.3
25°	405.3	407.9	412.4	417.7	419.5
27.5°	393.7	396.4	402.6	408.8	409.7
30°	382.2	384.9	392.9	398.2	400.8
32.5°	368.0	371.6	379.5	387.5	390.2
35°	354.7	358.3	367.1	375.1	378.7
37.5°	340.5	344.1	353.8	363.6	368.0
40°	324.6	329.0	340.5	351.2	357.4
42.5°	309.5	313.9	325.5	339.6	345.9
45°	292.6	297.1	311.3	327.2	335.2
47.5°	274.9	280.2	297.1	316.6	324.6
50°	257.2	263.4	282.0	304.2	313.0
52.5°	238.5	246.5	267.8	291.8	302.4
55°	219.0	228.8	253.6	279.3	290.0
57.5°	200.4	209.3	238.5	266.0	277.6
60°	180.0	191.5	224.4	252.7	265.2
62.5°	160.5	172.9	209.3	239.4	252.7
65°	143.7	156.1	193.3	225.2	239.4
67.5°	121.5	138.3	180.0	210.2	224.4
70°	99.3	122.4	163.2	194.2	207.5
72.5°	82.5	104.6	146.3	177.4	189.8
75°	63.0	87.8	128.6	155.2	163.2
77.5°	47.0	72.7	110.0	123.3	124.2
80°	34.6	55.9	83.4	87.8	91.3
82.5°	23.9	39.0	54.1	59.4	61.2
85°	15.1	23.1	31.0	33.7	33.7
87.5°	8.0	8.9	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)