

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: P291493

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291493
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-28-A19/156-UNV-L92765-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2283.0 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

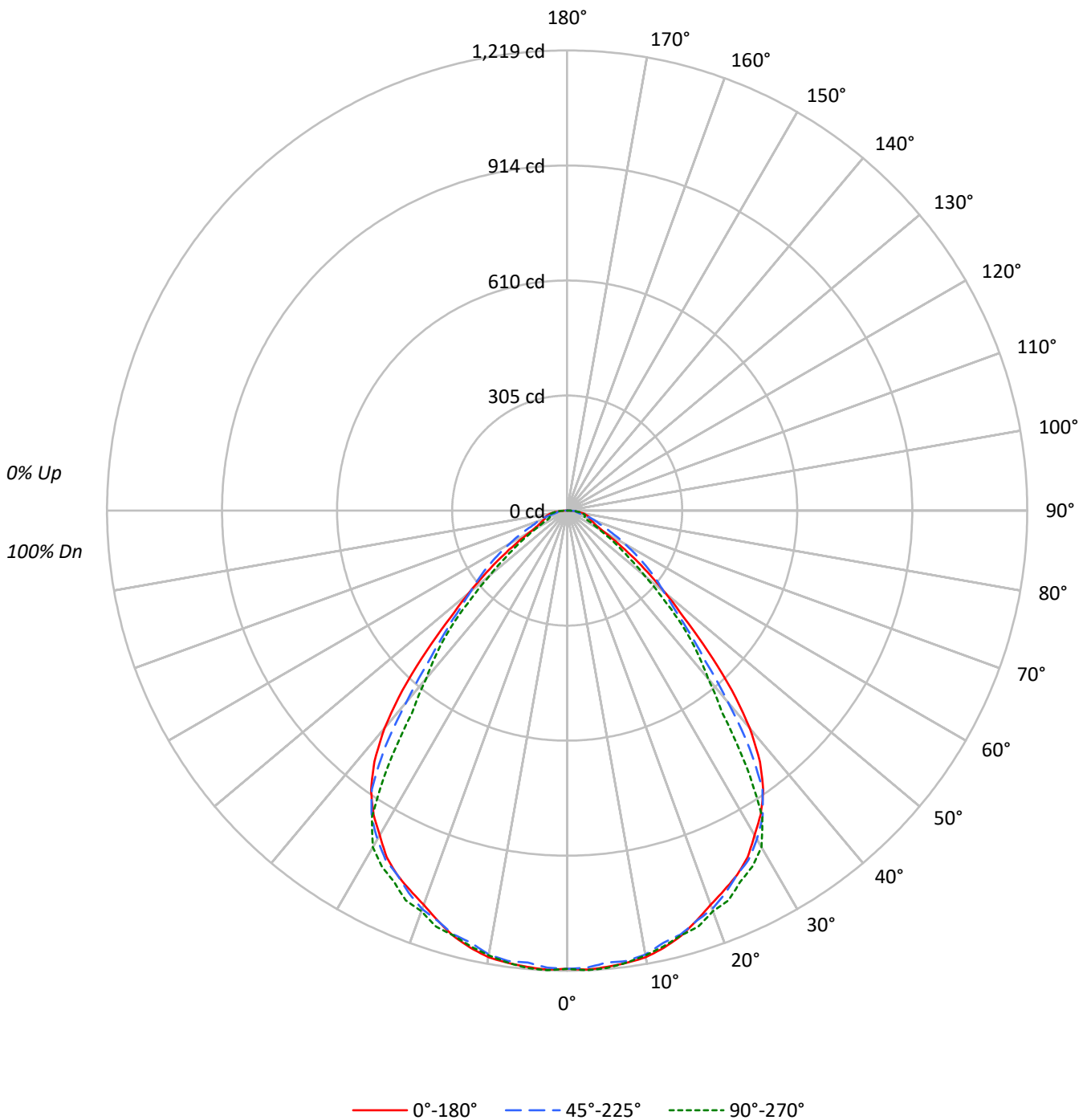
Input Watts (W): 22.041
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54					54			
6	77	65	58	52	75	64	57	52	63	56	51	61	55	51	60	55	51	49					49			
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44					44			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37					37			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3267	3267	3267
5°	3278	3247	3285
10°	3283	3263	3269
15°	3250	3238	3245
20°	3182	3216	3234
25°	3162	3161	3221
30°	3085	3123	3199
35°	2975	2963	2723
40°	2642	2331	2041
45°	2005	1744	1651
50°	1422	1396	1120
55°	974	1192	770
60°	602	950	515
65°	496	732	372
70°	493	637	382
75°	593	456	510
80°	680	422	640
85°	645	741	726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.2	5.0
10°-20°	328.8	14.4
20°-30°	494.4	21.7
30°-40°	539.0	23.6
40°-50°	377.4	16.5
50°-60°	213.6	9.4
60°-70°	116.9	5.1
70°-80°	70.8	3.1
80°-90°	26.9	1.2
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°	938.4	41.1
0°-40°	1477.4	64.7
0°-60°	2068.4	90.6
0°-90°	2283.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2283.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1214	1214	1214	1214	1214	
5°	1214	1211	1202	1216	1216	115
15°	1166	1163	1162	1179	1165	328
25°	1065	1067	1064	1089	1085	489
35°	906	902	902	856	829	558
45°	527	550	458	453	434	409
55°	208	248	254	252	164	190
65°	78	128	115	145	58	80
75°	57	82	44	86	49	59
85°	21	34	24	29	24	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1214.0	1214.0	1214.0	1214.0	1214.0
2.5°	1217.1	1215.6	1211.9	1219.2	1218.7
5°	1213.5	1211.4	1202.0	1216.1	1216.1
7.5°	1208.3	1203.0	1203.6	1211.4	1207.7
10°	1201.5	1192.6	1194.2	1196.2	1196.2
12.5°	1185.8	1177.4	1173.2	1180.0	1182.1
15°	1166.5	1163.3	1162.3	1179.0	1164.9
17.5°	1139.3	1146.1	1139.8	1153.4	1155.5
20°	1111.1	1124.1	1123.1	1132.5	1129.3
22.5°	1088.1	1096.4	1096.4	1107.9	1117.3
25°	1065.1	1067.2	1064.5	1089.1	1084.9
27.5°	1035.3	1033.7	1042.1	1054.6	1063.0
30°	992.9	993.5	1005.0	1021.7	1029.5
32.5°	954.3	949.6	963.7	971.0	962.6
35°	905.7	901.5	902.0	856.0	828.9
37.5°	839.3	843.0	794.9	710.7	675.2
40°	752.0	759.3	663.7	601.0	581.1
42.5°	646.5	648.6	544.0	523.6	510.6
45°	526.8	549.8	458.3	452.6	433.8
47.5°	417.6	460.4	384.1	387.8	342.8
50°	339.7	382.5	333.4	335.0	267.6
52.5°	268.6	310.4	294.2	289.5	210.1
55°	207.5	248.2	254.0	251.9	164.1
57.5°	152.6	196.5	213.2	221.1	126.5
60°	111.8	160.4	176.6	192.3	95.6
62.5°	88.8	139.0	144.8	167.8	74.2
65°	77.9	128.0	115.0	145.3	58.5
67.5°	69.5	121.8	93.5	128.6	51.2
70°	62.7	109.7	81.0	115.0	48.6
72.5°	62.7	96.2	63.8	101.9	49.1
75°	57.0	82.0	43.9	86.2	49.1
77.5°	50.7	70.0	32.9	70.0	46.0
80°	43.9	54.9	27.2	53.8	41.3
82.5°	32.4	41.3	23.5	40.2	33.4
85°	20.9	34.0	24.0	29.3	23.5
87.5°	9.9	17.2	15.2	14.6	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)