

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: P291351

Luminaire Tested: **14GR-LD5-28-A19/156-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291351
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-L83050-W2A1-U-3000K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2648.0 lumens
Efficiency: N/A
Efficacy: 119.1 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

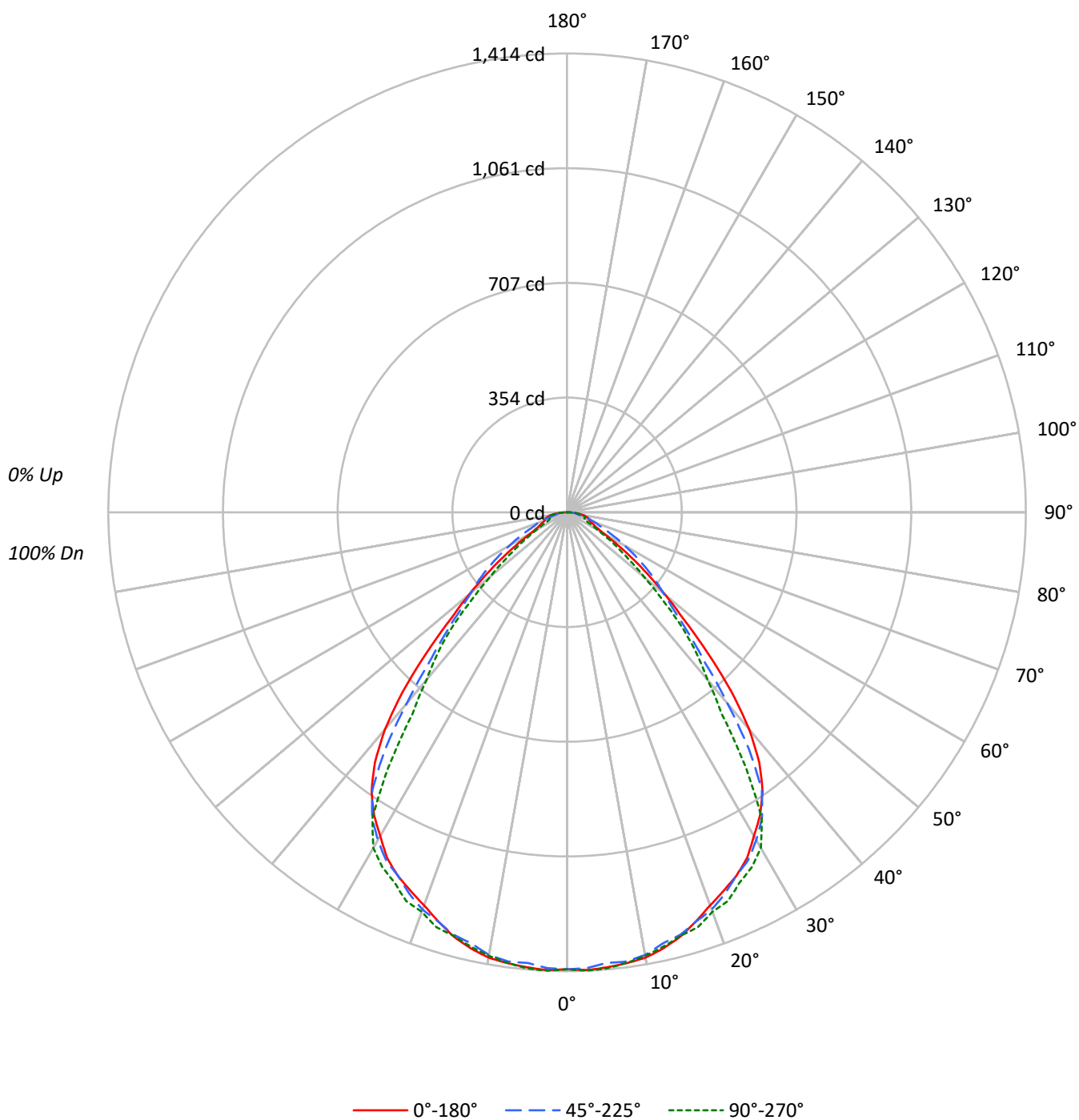
Input Watts (W): 22.227
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	104	100	108	105	102	99	101	98	96		97	95	93		93
2	103	96	90	86	100	94	89	85	91	87	83		88	84	81		85
3	95	87	80	74	93	85	79	74	82	77	73		80	75	71		77
4	89	79	71	65	87	77	70	65	75	69	64		73	68	63		71
5	83	71	64	58	81	70	63	58	68	62	57		67	61	57		65
6	77	65	58	52	75	64	57	52	63	56	51		61	55	51		60
7	72	60	52	47	70	59	52	47	58	51	46		56	51	46		55
8	67	55	48	43	66	55	47	42	53	47	42		52	46	42		51
9	63	51	44	39	62	51	44	39	50	43	39		49	43	38		48
10	60	48	40	36	58	47	40	36	46	40	35		45	39	35		44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3789	3789	3789
5°	3802	3766	3810
10°	3808	3785	3791
15°	3769	3756	3764
20°	3690	3730	3751
25°	3668	3666	3736
30°	3579	3622	3710
35°	3451	3437	3158
40°	3064	2704	2368
45°	2325	2023	1915
50°	1649	1619	1299
55°	1129	1382	893
60°	698	1103	597
65°	575	849	432
70°	572	740	444
75°	687	529	593
80°	789	488	742
85°	747	861	843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.6	5.0
10°-20°	381.3	14.4
20°-30°	573.5	21.7
30°-40°	625.2	23.6
40°-50°	437.7	16.5
50°-60°	247.8	9.4
60°-70°	135.6	5.1
70°-80°	82.2	3.1
80°-90°	31.2	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°	1088.4	41.1
0°-40°	1713.5	64.7
0°-60°	2399.1	90.6
0°-90°	2648.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1408	1405	1394	1410	1410	134
15°	1353	1349	1348	1368	1351	381
25°	1235	1238	1235	1263	1258	567
35°	1050	1046	1046	993	961	647
45°	611	638	532	525	503	475
55°	241	288	295	292	190	220
65°	90	148	133	168	68	93
75°	66	95	51	100	57	69
85°	24	39	28	34	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1408.1	1408.1	1408.1	1408.1	1408.1
2.5°	1411.7	1409.9	1405.7	1414.2	1413.6
5°	1407.5	1405.1	1394.2	1410.5	1410.5
7.5°	1401.4	1395.4	1396.0	1405.1	1400.8
10°	1393.6	1383.3	1385.1	1387.5	1387.5
12.5°	1375.4	1365.7	1360.8	1368.7	1371.1
15°	1352.9	1349.3	1348.1	1367.5	1351.1
17.5°	1321.4	1329.3	1322.0	1337.8	1340.2
20°	1288.7	1303.8	1302.6	1313.5	1309.9
22.5°	1262.0	1271.7	1271.7	1285.1	1296.0
25°	1235.3	1237.8	1234.7	1263.2	1258.4
27.5°	1200.8	1199.0	1208.7	1223.2	1232.9
30°	1151.7	1152.3	1165.6	1185.0	1194.1
32.5°	1106.8	1101.4	1117.8	1126.2	1116.5
35°	1050.5	1045.6	1046.2	992.9	961.4
37.5°	973.5	977.7	922.0	824.4	783.2
40°	872.3	880.7	769.8	697.1	674.0
42.5°	749.8	752.2	631.0	607.4	592.2
45°	611.0	637.7	531.6	524.9	503.1
47.5°	484.3	534.0	445.5	449.8	397.6
50°	394.0	443.7	386.7	388.5	310.4
52.5°	311.6	360.1	341.3	335.8	243.7
55°	240.6	287.9	294.6	292.2	190.3
57.5°	177.0	227.9	247.3	256.4	146.7
60°	129.7	186.1	204.9	223.1	110.9
62.5°	103.0	161.2	167.9	194.6	86.1
65°	90.3	148.5	133.4	168.5	67.9
67.5°	80.6	141.2	108.5	149.1	59.4
70°	72.7	127.3	94.0	133.4	56.4
72.5°	72.7	111.5	74.0	118.2	57.0
75°	66.1	95.2	50.9	100.0	57.0
77.5°	58.8	81.2	38.2	81.2	53.3
80°	50.9	63.6	31.5	62.4	47.9
82.5°	37.6	47.9	27.3	46.7	38.8
85°	24.2	39.4	27.9	33.9	27.3
87.5°	11.5	20.0	17.6	17.0	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)