

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: P291457

Luminaire Tested: **14GR-LD5-32-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291457
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-LD5-32-A19/156-UNV-L93050-W2A1-U-4500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2969.0 lumens
Efficiency: N/A
Efficacy: 110.8 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

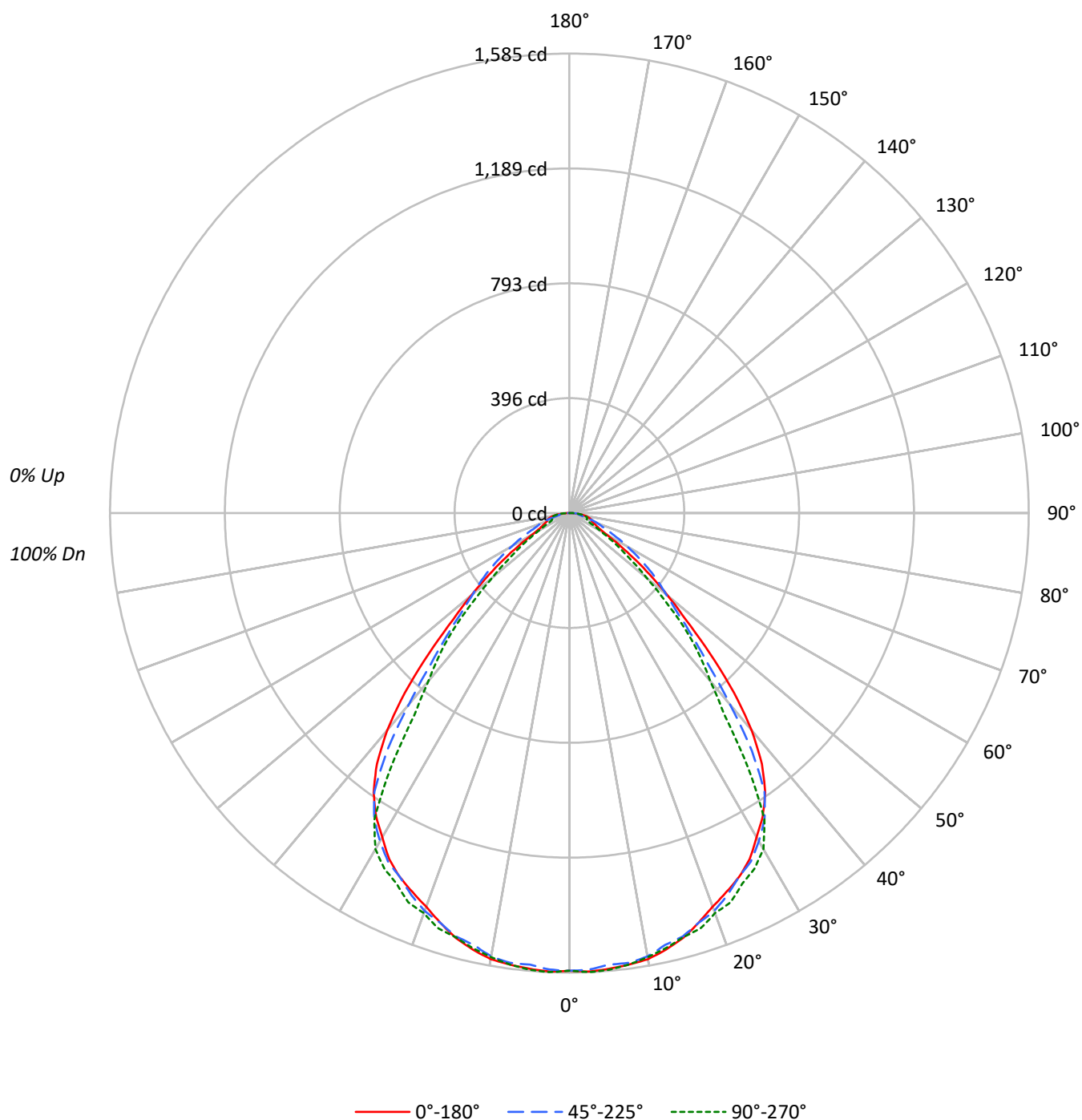
Input Watts (W): 26.784
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4249	4249	4249
5°	4263	4223	4272
10°	4270	4244	4251
15°	4226	4211	4220
20°	4138	4182	4206
25°	4113	4111	4189
30°	4012	4061	4160
35°	3869	3854	3541
40°	3436	3032	2655
45°	2607	2268	2147
50°	1850	1815	1457
55°	1266	1550	1001
60°	783	1236	670
65°	645	952	485
70°	642	828	497
75°	770	594	664
80°	885	547	832
85°	840	966	945



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.8	5.0
10°-20°	427.6	14.4
20°-30°	643.0	21.7
30°-40°	700.9	23.6
40°-50°	490.8	16.5
50°-60°	277.8	9.4
60°-70°	152.0	5.1
70°-80°	92.1	3.1
80°-90°	34.9	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°	1220.3	41.1
0°-40°	1921.3	64.7
0°-60°	2689.9	90.6
0°-90°	2969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2969.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1578	1575	1563	1582	1582	150
15°	1517	1513	1512	1533	1515	427
25°	1385	1388	1384	1416	1411	636
35°	1178	1172	1173	1113	1078	726
45°	685	715	596	589	564	532
55°	270	323	330	328	213	247
65°	101	166	150	189	76	104
75°	74	107	57	112	64	77
85°	27	44	31	38	31	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1578.8	1578.8	1578.8	1578.8	1578.8
2.5°	1582.9	1580.8	1576.1	1585.6	1584.9
5°	1578.1	1575.4	1563.2	1581.5	1581.5
7.5°	1571.3	1564.5	1565.2	1575.4	1570.6
10°	1562.5	1550.9	1553.0	1555.7	1555.7
12.5°	1542.1	1531.2	1525.8	1534.6	1537.3
15°	1517.0	1512.9	1511.5	1533.3	1514.9
17.5°	1481.6	1490.4	1482.3	1500.0	1502.7
20°	1444.9	1461.9	1460.5	1472.8	1468.7
22.5°	1415.0	1425.9	1425.9	1440.8	1453.1
25°	1385.1	1387.8	1384.4	1416.4	1410.9
27.5°	1346.4	1344.3	1355.2	1371.5	1382.4
30°	1291.3	1292.0	1306.9	1328.7	1338.9
32.5°	1241.0	1234.9	1253.3	1262.8	1251.9
35°	1177.8	1172.4	1173.1	1113.2	1077.9
37.5°	1091.5	1096.3	1033.7	924.3	878.1
40°	978.0	987.5	863.1	781.6	755.8
42.5°	840.7	843.4	707.5	681.0	664.0
45°	685.1	715.0	596.0	588.6	564.1
47.5°	543.0	598.8	499.5	504.3	445.8
50°	441.8	497.5	433.6	435.6	348.0
52.5°	349.3	403.7	382.6	376.5	273.2
55°	269.8	322.8	330.3	327.6	213.4
57.5°	198.5	255.5	277.3	287.5	164.5
60°	145.4	208.6	229.7	250.1	124.4
62.5°	115.5	180.8	188.3	218.2	96.5
65°	101.3	166.5	149.5	188.9	76.1
67.5°	90.4	158.4	121.7	167.2	66.6
70°	81.6	142.7	105.3	149.5	63.2
72.5°	81.6	125.1	82.9	132.5	63.9
75°	74.1	106.7	57.1	112.1	63.9
77.5°	65.9	91.1	42.8	91.1	59.8
80°	57.1	71.4	35.3	70.0	53.7
82.5°	42.1	53.7	30.6	52.3	43.5
85°	27.2	44.2	31.3	38.1	30.6
87.5°	12.9	22.4	19.7	19.0	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)