

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: P294054

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294054
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-38-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3184.0 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

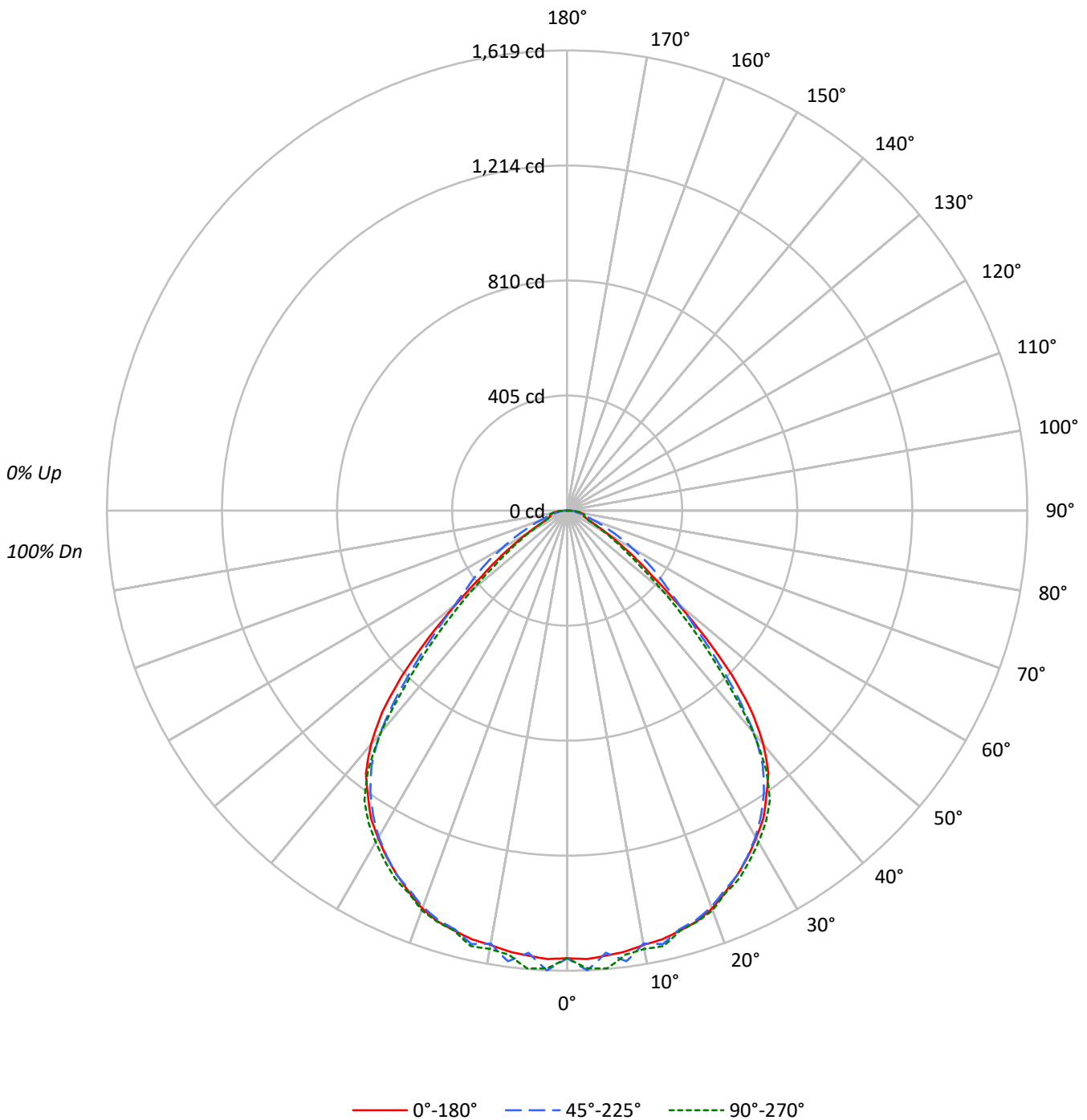
Input Watts (W): 25.871391
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	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	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2118	2118	2118
5°	2123	2109	2184
10°	2120	2113	2139
15°	2132	2125	2133
20°	2133	2125	2142
25°	2101	2102	2123
30°	2066	2059	2093
35°	2007	1983	2043
40°	1885	1801	1791
45°	1563	1414	1341
50°	1051	1073	916
55°	693	900	601
60°	445	710	411
65°	287	542	278
70°	253	388	253
75°	327	308	330
80°	400	266	420
85°	466	395	489



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.7	4.7
10°-20°	432.8	13.6
20°-30°	651.6	20.5
30°-40°	755.3	23.7
40°-50°	590.0	18.5
50°-60°	315.1	9.9
60°-70°	162.0	5.1
70°-80°	91.6	2.9
80°-90°	34.8	1.1
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°	1235.2	38.8
0°-40°	1990.5	62.5
0°-60°	2895.6	90.9
0°-90°	3184.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3184.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1574	1574	1574	1574	1574	
5°	1572	1616	1562	1605	1617	149
15°	1530	1540	1525	1535	1531	432
25°	1415	1410	1416	1414	1430	652
35°	1222	1216	1207	1231	1244	762
45°	821	822	743	736	705	619
55°	296	374	384	346	256	273
65°	90	188	170	187	87	99
75°	63	118	59	110	63	64
85°	30	39	26	39	32	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1574.4	1574.4	1574.4	1574.4	1574.4
2.5°	1579.5	1608.1	1619.4	1605.6	1611.7
5°	1571.8	1615.8	1561.6	1604.6	1616.8
7.5°	1564.7	1560.1	1599.5	1558.5	1575.9
10°	1551.4	1554.5	1546.8	1575.9	1565.7
12.5°	1545.3	1563.1	1561.6	1546.8	1569.3
15°	1530.4	1540.1	1525.3	1535.0	1531.4
17.5°	1515.6	1511.0	1509.5	1513.5	1517.1
20°	1490.0	1474.7	1483.9	1484.9	1496.2
22.5°	1453.2	1444.0	1446.1	1455.3	1456.3
25°	1414.9	1410.3	1415.9	1413.8	1429.7
27.5°	1375.0	1368.8	1372.4	1380.1	1389.8
30°	1329.5	1327.9	1325.4	1332.0	1346.9
32.5°	1284.5	1272.2	1270.2	1284.0	1300.8
35°	1222.1	1216.5	1207.3	1231.3	1243.6
37.5°	1162.8	1145.4	1130.6	1144.9	1150.0
40°	1073.3	1060.0	1025.2	1026.8	1019.6
42.5°	963.4	953.6	887.2	875.4	855.5
45°	821.2	821.7	743.0	736.3	704.6
47.5°	656.0	685.2	616.7	609.0	562.0
50°	502.1	554.8	512.4	500.1	437.7
52.5°	376.9	454.1	440.8	414.2	328.3
55°	295.6	373.8	383.5	345.7	256.2
57.5°	222.4	307.8	323.7	292.5	197.9
60°	165.2	259.2	263.8	251.6	152.9
62.5°	122.7	220.4	214.2	215.8	113.5
65°	90.0	187.7	170.3	187.1	87.4
67.5°	73.6	162.6	132.4	162.1	71.1
70°	64.4	144.2	98.7	142.7	64.4
72.5°	62.4	132.4	78.2	126.8	62.9
75°	62.9	118.1	59.3	110.4	63.4
77.5°	57.8	97.2	45.0	94.1	60.3
80°	51.6	73.6	34.3	74.7	54.2
82.5°	44.0	53.7	27.6	55.2	45.5
85°	30.2	39.4	25.6	39.4	31.7
87.5°	14.3	23.5	15.9	22.5	16.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)