

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: NEO-RAY

Report Number: P231745

Luminaire Tested: **S123-RDR-2-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231745
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33914)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-RDR-2-35-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3622.2 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.23
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

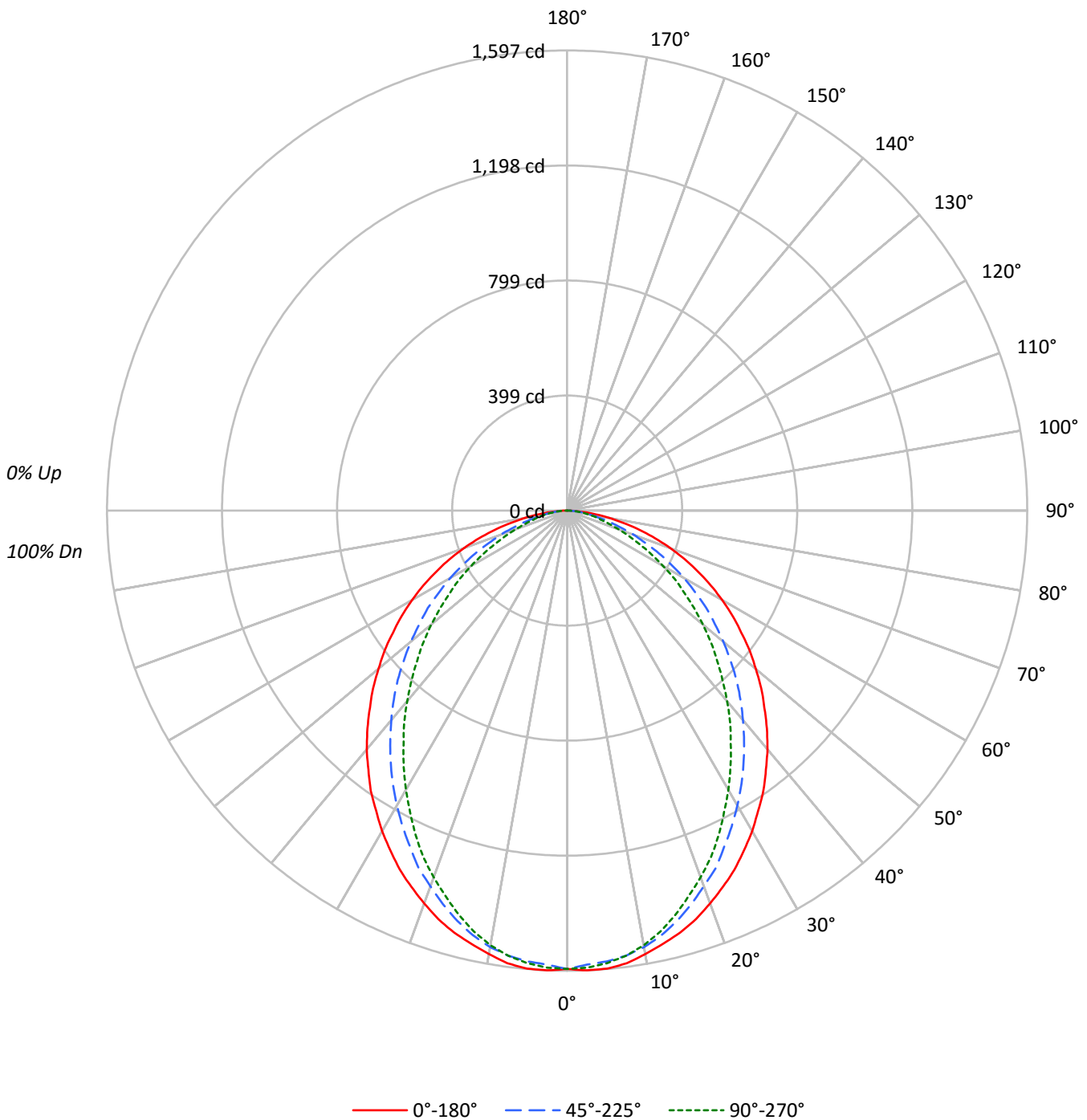
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19580	19580	19580
5°	19711	19404	19481
10°	19530	19219	19142
15°	19317	18782	18504
20°	19001	18164	17737
25°	18665	17503	16889
30°	18250	16791	15905
35°	17844	16043	14874
40°	17380	15255	13879
45°	16852	14467	12815
50°	16363	13531	11773
55°	15831	12660	10621
60°	15288	11532	9464
65°	14596	10245	8113
70°	13724	8848	6833
75°	12435	7104	5701
80°	10702	5734	5294
85°	8360	4829	4618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.8	4.1
10°-20°	417.2	11.5
20°-30°	599.4	16.5
30°-40°	674.6	18.6
40°-50°	648.8	17.9
50°-60°	537.8	14.8
60°-70°	367.0	10.1
70°-80°	182.3	5.0
80°-90°	45.2	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
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0°-30°	1166.4	32.2
0°-40°	1841.0	50.8
0°-60°	3027.7	83.6
0°-90°	3622.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3622.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1591	1591	1591	1591	1591	
5°	1596	1589	1571	1582	1577	151
15°	1516	1502	1474	1469	1452	427
25°	1374	1351	1289	1262	1244	632
35°	1188	1143	1068	1016	990	742
45°	968	917	831	763	736	748
55°	738	680	590	520	495	661
65°	501	439	352	297	279	496
75°	262	210	149	124	120	277
85°	59	39	34	34	33	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1590.9	1590.9	1590.9	1590.9	1590.9
2.5°	1597.1	1590.9	1576.9	1590.9	1587.8
5°	1595.5	1589.3	1570.6	1581.5	1576.9
7.5°	1584.6	1576.9	1558.2	1564.4	1558.2
10°	1562.8	1558.2	1537.9	1541.1	1531.7
12.5°	1539.5	1531.7	1509.9	1509.9	1495.9
15°	1516.1	1502.1	1474.1	1469.4	1452.3
17.5°	1486.6	1477.2	1432.1	1424.3	1402.5
20°	1450.8	1433.6	1386.9	1372.9	1354.3
22.5°	1413.4	1393.2	1344.9	1321.6	1302.9
25°	1374.5	1351.1	1288.9	1262.4	1243.7
27.5°	1329.4	1302.9	1236.0	1204.8	1179.9
30°	1284.2	1251.5	1181.5	1144.1	1119.2
32.5°	1234.4	1200.2	1125.4	1078.7	1055.4
35°	1187.7	1142.6	1067.8	1016.5	990.0
37.5°	1133.2	1088.1	1008.7	951.1	929.3
40°	1081.8	1033.6	949.5	888.8	863.9
42.5°	1025.8	974.4	890.4	826.6	798.5
45°	968.2	916.8	831.2	762.7	736.3
47.5°	913.7	859.3	769.0	702.0	677.1
50°	854.6	801.7	706.7	639.8	614.9
52.5°	798.5	739.4	646.0	579.1	554.2
55°	737.8	680.2	590.0	519.9	495.0
57.5°	681.8	621.1	526.1	460.8	443.6
60°	621.1	558.8	468.5	406.3	384.5
62.5°	561.9	496.6	407.8	350.2	331.6
65°	501.2	439.0	351.8	297.3	278.6
67.5°	442.1	381.4	294.2	249.1	231.9
70°	381.4	322.2	245.9	202.4	189.9
72.5°	320.7	266.2	194.6	160.3	151.0
75°	261.5	210.1	149.4	124.5	119.9
77.5°	202.4	160.3	110.5	98.1	96.5
80°	151.0	110.5	80.9	74.7	74.7
82.5°	101.2	68.5	56.0	54.5	52.9
85°	59.2	38.9	34.2	34.2	32.7
87.5°	24.9	15.6	15.6	15.6	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)