

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: P242538

Luminaire Tested: **S123RDR-S1165D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D835-X4F0-XX-UDD-F-W
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4128.4 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

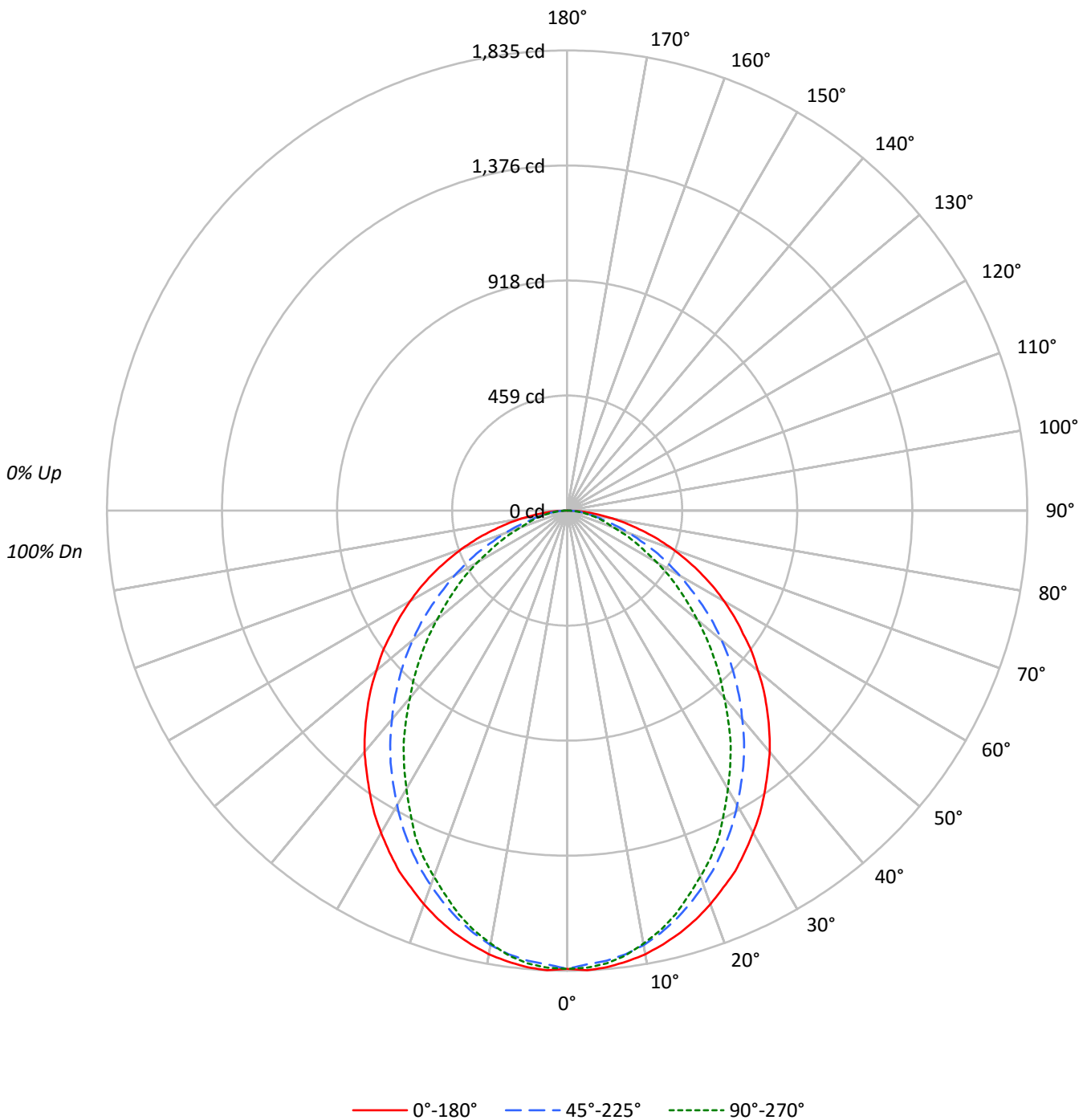
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75					73				
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64					62				
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56					54				
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49					47				
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44					42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35					34				
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32					30				
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22150	22150	22150
5°	22235	21928	22055
10°	22109	21653	21580
15°	21871	21146	20923
20°	21545	20513	20035
25°	21209	19802	19168
30°	20765	18980	17943
35°	20308	18159	16822
40°	19887	17190	15431
45°	19334	16233	14176
50°	18725	15148	12772
55°	18102	13905	11462
60°	17535	12575	10024
65°	16790	11137	8587
70°	15863	9349	6932
75°	14509	7357	6524
80°	12935	6520	6003
85°	10931	5772	5354



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.8	4.2
10°-20°	477.9	11.6
20°-30°	688.1	16.7
30°-40°	774.9	18.8
40°-50°	741.2	18.0
50°-60°	606.7	14.7
60°-70°	409.1	9.9
70°-80°	205.2	5.0
80°-90°	53.6	1.3
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°	1337.7	32.4
0°-40°	2112.6	51.2
0°-60°	3460.5	83.8
0°-90°	4128.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4128.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1827	1827	1827	1827	1827	
5°	1827	1820	1802	1816	1813	173
15°	1743	1727	1685	1678	1667	491
25°	1586	1549	1481	1450	1433	729
35°	1372	1319	1227	1163	1137	859
45°	1128	1061	947	863	827	870
55°	857	784	658	572	542	768
65°	585	504	388	316	299	579
75°	310	239	157	142	139	330
85°	79	46	42	38	38	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1827.4	1827.4	1827.4	1827.4	1827.4
2.5°	1834.8	1828.9	1811.1	1827.4	1824.4
5°	1827.4	1820.0	1802.2	1815.5	1812.6
7.5°	1814.1	1806.7	1784.4	1793.3	1788.9
10°	1796.3	1785.9	1759.2	1760.7	1753.3
12.5°	1771.1	1759.2	1725.1	1723.7	1714.8
15°	1742.9	1726.6	1685.1	1677.7	1667.3
17.5°	1708.8	1691.1	1639.2	1624.4	1609.5
20°	1670.3	1646.6	1590.3	1571.0	1553.2
22.5°	1627.3	1599.2	1538.4	1513.2	1496.9
25°	1585.8	1548.8	1480.6	1449.5	1433.2
27.5°	1535.4	1495.4	1421.3	1379.8	1354.6
30°	1483.6	1439.1	1356.1	1305.7	1282.0
32.5°	1431.7	1379.8	1290.9	1234.6	1209.4
35°	1372.4	1319.1	1227.2	1163.4	1136.8
37.5°	1313.1	1255.3	1159.0	1087.8	1055.2
40°	1256.8	1191.6	1086.4	1009.3	975.2
42.5°	1193.1	1127.9	1018.2	932.2	902.6
45°	1127.9	1061.2	947.0	862.6	827.0
47.5°	1064.1	990.0	877.4	785.5	754.4
50°	993.0	923.3	803.3	711.4	677.3
52.5°	929.3	852.2	733.6	637.3	607.7
55°	856.6	784.0	658.0	572.1	542.4
57.5°	791.4	712.9	585.4	503.9	478.7
60°	723.3	641.7	518.7	438.7	413.5
62.5°	655.1	573.6	450.6	376.4	349.8
65°	585.4	503.9	388.3	315.7	299.4
67.5°	515.8	432.8	320.1	265.3	247.5
70°	447.6	367.6	263.8	211.9	195.6
72.5°	379.4	300.9	209.0	169.0	164.5
75°	309.8	238.6	157.1	142.3	139.3
77.5°	246.0	180.8	123.0	114.1	111.2
80°	185.3	124.5	93.4	88.9	86.0
82.5°	127.5	77.1	66.7	62.2	62.2
85°	78.6	45.9	41.5	38.5	38.5
87.5°	35.6	19.3	19.3	17.8	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)