

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: P242536

Luminaire Tested: **S123RDR-S560D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242536
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-S560D835-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: 2000.1 lumens
Efficiency: N/A
Efficacy: 106.4 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

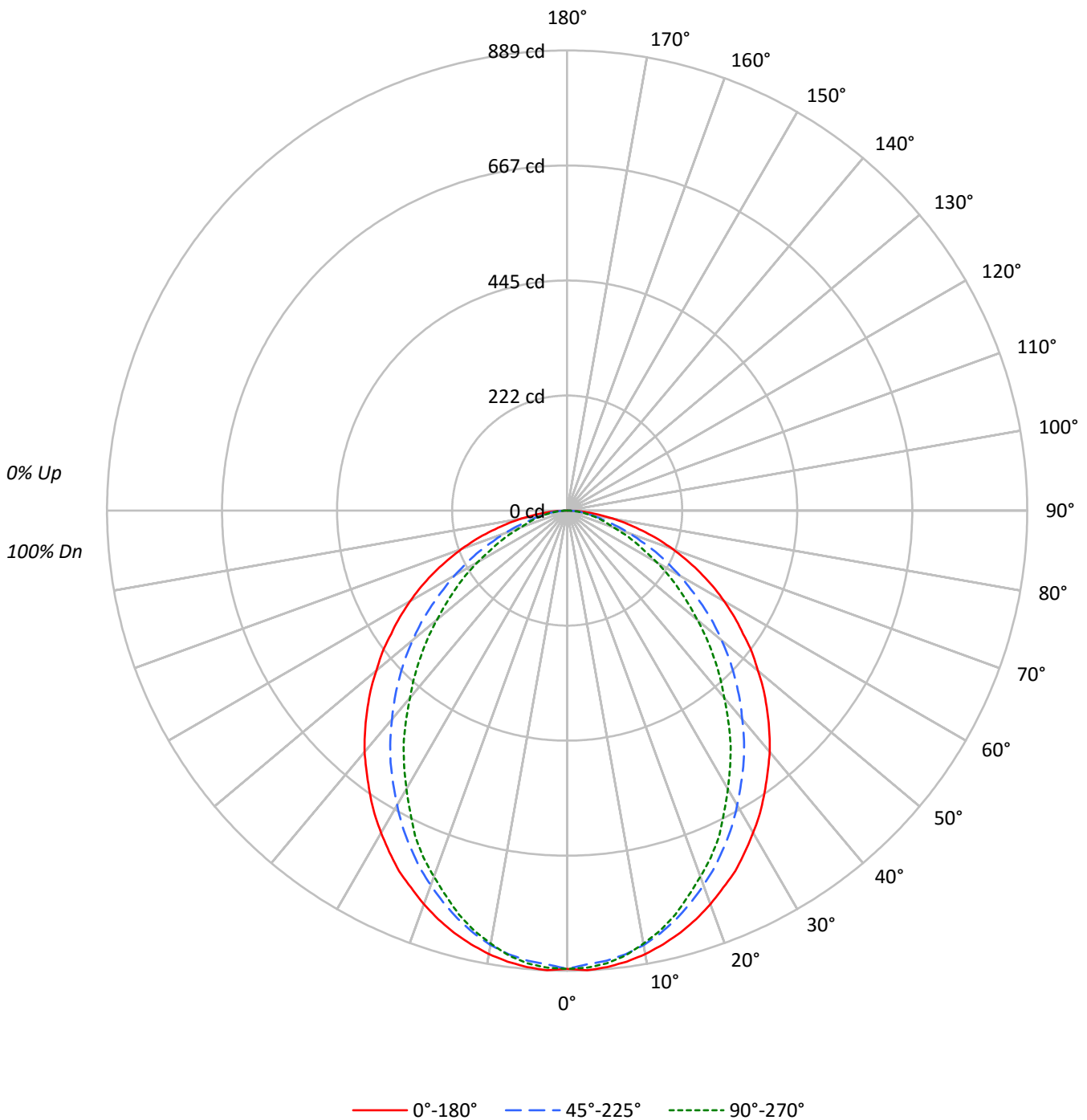
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10731	10731	10731
5°	10772	10623	10684
10°	10711	10490	10455
15°	10596	10245	10137
20°	10438	9937	9707
25°	10275	9593	9286
30°	10059	9196	8693
35°	9839	8797	8149
40°	9635	8328	7476
45°	9366	7865	6869
50°	9072	7339	6187
55°	8770	6737	5554
60°	8495	6092	4856
65°	8134	5395	4159
70°	7683	4529	3360
75°	7030	3564	3161
80°	6268	3155	2904
85°	5299	2795	2601



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	4.2
10°-20°	231.5	11.6
20°-30°	333.3	16.7
30°-40°	375.4	18.8
40°-50°	359.1	18.0
50°-60°	293.9	14.7
60°-70°	198.2	9.9
70°-80°	99.4	5.0
80°-90°	26.0	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°	648.1	32.4
0°-40°	1023.5	51.2
0°-60°	1676.5	83.8
0°-90°	2000.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2000.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	885	885	885	885	885	
5°	885	882	873	880	878	84
15°	844	836	816	813	808	238
25°	768	750	717	702	694	353
35°	665	639	594	564	551	416
45°	546	514	459	418	401	422
55°	415	380	319	277	263	372
65°	284	244	188	153	145	281
75°	150	116	76	69	68	160
85°	38	22	20	19	19	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	885.3	885.3	885.3	885.3	885.3
2.5°	888.9	886.0	877.4	885.3	883.9
5°	885.3	881.7	873.1	879.6	878.1
7.5°	878.9	875.3	864.5	868.8	866.7
10°	870.2	865.2	852.3	853.0	849.4
12.5°	858.0	852.3	835.8	835.1	830.8
15°	844.4	836.5	816.4	812.8	807.8
17.5°	827.9	819.3	794.1	787.0	779.8
20°	809.2	797.7	770.4	761.1	752.5
22.5°	788.4	774.8	745.3	733.1	725.2
25°	768.3	750.3	717.3	702.2	694.3
27.5°	743.9	724.5	688.6	668.5	656.3
30°	718.7	697.2	657.0	632.6	621.1
32.5°	693.6	668.5	625.4	598.1	585.9
35°	664.9	639.0	594.5	563.7	550.7
37.5°	636.2	608.2	561.5	527.0	511.2
40°	608.9	577.3	526.3	489.0	472.5
42.5°	578.0	546.4	493.3	451.6	437.3
45°	546.4	514.1	458.8	417.9	400.7
47.5°	515.5	479.6	425.1	380.6	365.5
50°	481.1	447.3	389.2	344.7	328.1
52.5°	450.2	412.9	355.4	308.8	294.4
55°	415.0	379.8	318.8	277.2	262.8
57.5°	383.4	345.4	283.6	244.1	231.9
60°	350.4	310.9	251.3	212.5	200.3
62.5°	317.4	277.9	218.3	182.4	169.5
65°	283.6	244.1	188.1	152.9	145.0
67.5°	249.9	209.7	155.1	128.5	119.9
70°	216.8	178.1	127.8	102.7	94.8
72.5°	183.8	145.8	101.2	81.9	79.7
75°	150.1	115.6	76.1	68.9	67.5
77.5°	119.2	87.6	59.6	55.3	53.9
80°	89.8	60.3	45.2	43.1	41.6
82.5°	61.8	37.3	32.3	30.2	30.2
85°	38.1	22.3	20.1	18.7	18.7
87.5°	17.2	9.3	9.3	8.6	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)