

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: P242871

Luminaire Tested: **S125RDR-S850D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242871  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S850D927-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2478.1 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct

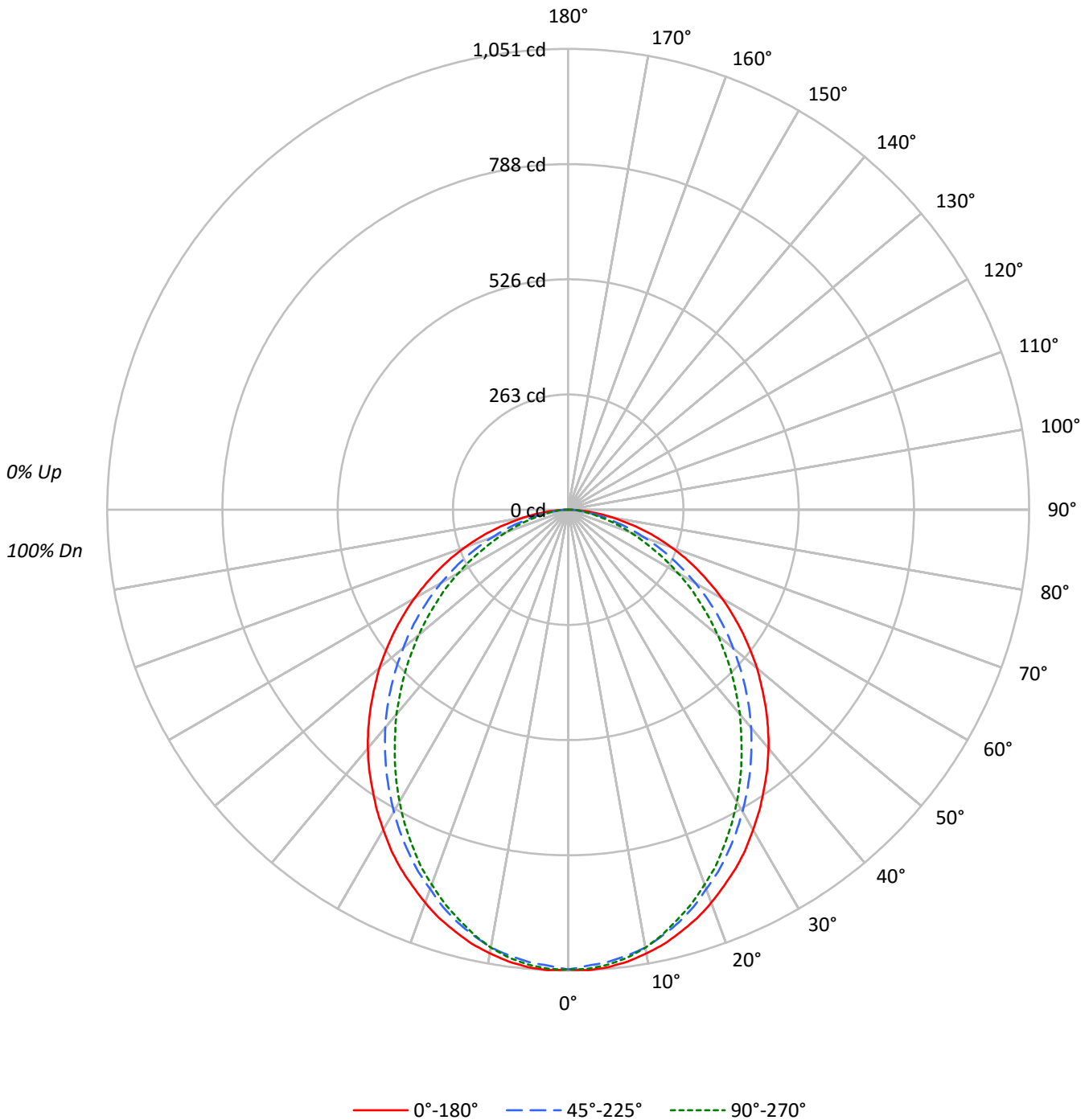
Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7454	7454	7454
5°	7472	7387	7432
10°	7415	7318	7318
15°	7327	7170	7112
20°	7214	6962	6878
25°	7082	6759	6610
30°	6918	6521	6313
35°	6749	6276	5980
40°	6593	6020	5652
45°	6402	5733	5295
50°	6211	5422	4923
55°	5987	5124	4525
60°	5765	4763	4100
65°	5503	4344	3611
70°	5201	3819	3111
75°	4786	3218	2590
80°	4216	2529	2173
85°	3555	2063	1941



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.7	4.0
10°-20°	275.9	11.1
20°-30°	400.0	16.1
30°-40°	455.7	18.4
40°-50°	444.2	17.9
50°-60°	373.8	15.1
60°-70°	262.0	10.6
70°-80°	134.3	5.4
80°-90°	33.5	1.4
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°	774.6	31.3
0°-40°	1230.3	49.6
0°-60°	2048.3	82.7
0°-90°	2478.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2478.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1047	1044	1035	1043	1042	99
15°	996	991	974	974	966	281
25°	903	891	862	852	843	416
35°	778	759	723	700	689	487
45°	637	614	570	539	527	491
55°	483	458	414	378	365	432
65°	327	300	258	227	215	324
75°	174	150	117	100	94	184
85°	44	29	25	25	24	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1048.8	1048.8	1048.8	1048.8	1048.8
2.5°	1051.2	1048.8	1040.9	1048.8	1048.1
5°	1047.3	1044.1	1035.4	1043.3	1041.7
7.5°	1039.3	1036.2	1025.9	1032.2	1030.6
10°	1027.5	1025.1	1014.0	1016.4	1014.0
12.5°	1014.0	1010.8	995.0	996.6	992.6
15°	995.8	991.0	974.4	973.6	966.5
17.5°	976.8	969.6	949.8	945.9	940.3
20°	953.8	945.9	920.5	916.6	909.4
22.5°	928.4	920.5	893.6	884.9	879.3
25°	903.1	891.2	861.9	851.6	842.9
27.5°	874.6	860.3	829.4	815.9	807.2
30°	842.9	827.8	794.6	776.3	769.2
32.5°	812.0	793.8	759.7	739.1	729.6
35°	777.9	758.9	723.3	700.3	689.2
37.5°	745.4	722.5	686.0	659.1	648.0
40°	710.6	686.8	648.8	618.7	609.2
42.5°	674.1	649.6	610.0	581.5	566.4
45°	636.9	613.9	570.4	538.7	526.8
47.5°	598.1	574.3	530.8	498.3	484.8
50°	561.7	535.5	490.4	457.1	445.2
52.5°	522.0	495.1	453.1	416.7	404.8
55°	483.2	457.9	413.5	377.9	365.2
57.5°	443.6	416.7	373.9	339.1	328.0
60°	405.6	377.9	335.1	300.2	288.4
62.5°	365.2	339.1	295.5	263.8	251.9
65°	327.2	300.2	258.3	226.6	214.7
67.5°	289.1	262.2	221.8	191.7	182.2
70°	250.3	223.4	183.8	159.2	149.7
72.5°	212.3	186.2	149.7	127.5	122.0
75°	174.3	150.5	117.2	99.8	94.3
77.5°	135.5	116.5	88.7	75.3	70.5
80°	103.0	84.0	61.8	54.7	53.1
82.5°	71.3	54.7	41.2	38.8	38.0
85°	43.6	29.3	25.3	24.6	23.8
87.5°	18.2	12.7	11.9	11.9	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)