

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: P242876

Luminaire Tested: **S125RDR-S850D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242876  
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-S850D830-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2948.4 lumens  
Efficiency: N/A  
Efficacy: 111.7 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

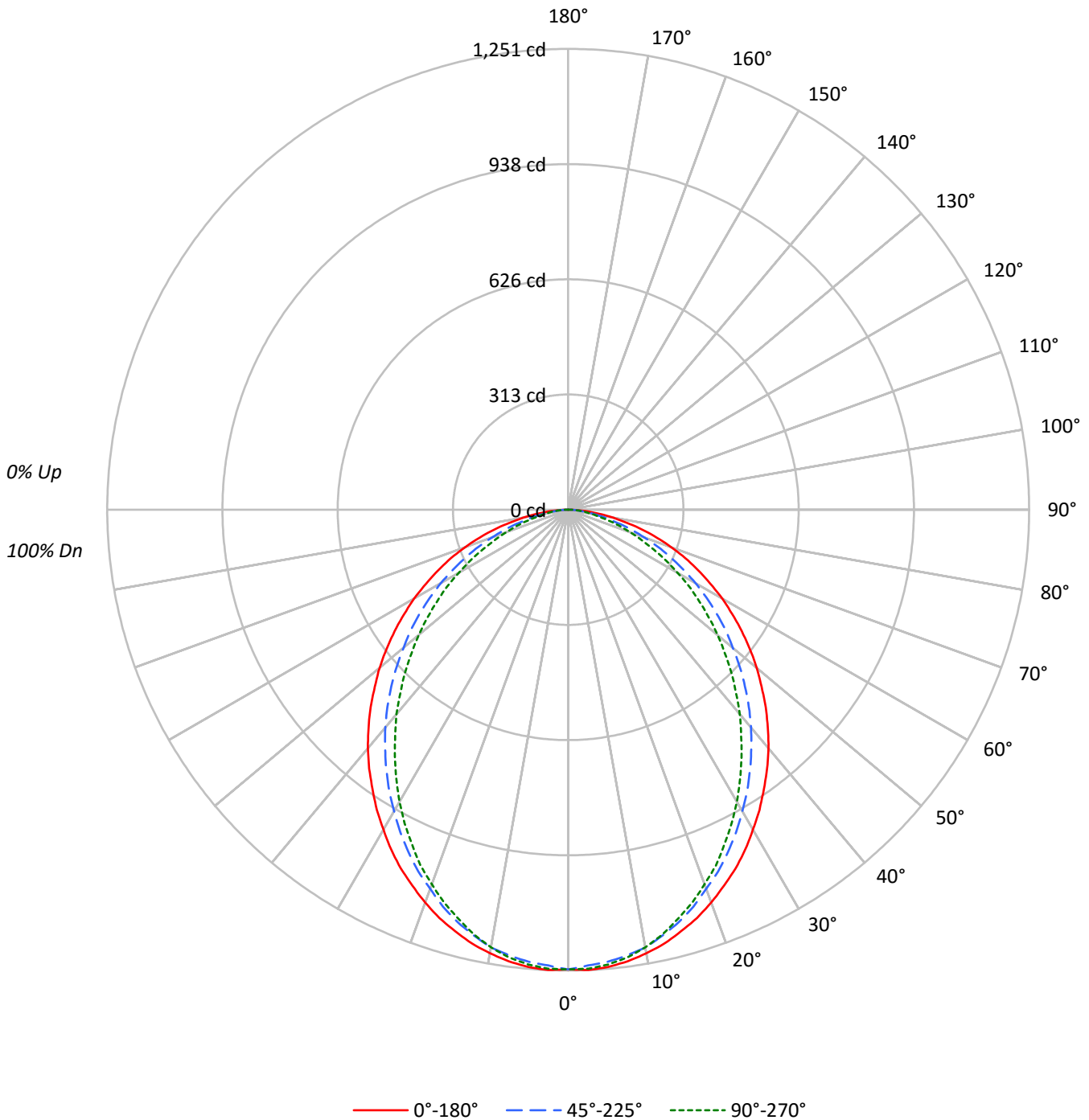
Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8869	8869	8869
5°	8890	8789	8842
10°	8823	8707	8707
15°	8718	8530	8461
20°	8583	8284	8184
25°	8426	8042	7865
30°	8231	7759	7511
35°	8031	7466	7115
40°	7845	7162	6725
45°	7617	6821	6300
50°	7389	6451	5857
55°	7125	6097	5384
60°	6860	5667	4877
65°	6547	5168	4295
70°	6188	4545	3701
75°	5695	3831	3081
80°	5014	3008	2587
85°	4224	2463	2308



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.5	4.0
10°-20°	328.2	11.1
20°-30°	475.9	16.1
30°-40°	542.2	18.4
40°-50°	528.5	17.9
50°-60°	444.8	15.1
60°-70°	311.7	10.6
70°-80°	159.8	5.4
80°-90°	39.8	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°	921.6	31.3
0°-40°	1463.8	49.6
0°-60°	2437.1	82.7
0°-90°	2948.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2948.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1246	1242	1232	1241	1239	118
15°	1185	1179	1159	1158	1150	334
25°	1074	1060	1026	1013	1003	495
35°	926	903	860	833	820	580
45°	758	730	679	641	627	584
55°	575	545	492	450	434	514
65°	389	357	307	270	255	385
75°	207	179	140	119	112	219
85°	52	35	30	29	28	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1247.9	1247.9	1247.9	1247.9	1247.9
2.5°	1250.8	1247.9	1238.5	1247.9	1247.0
5°	1246.0	1242.3	1231.9	1241.3	1239.4
7.5°	1236.6	1232.8	1220.6	1228.1	1226.2
10°	1222.5	1219.6	1206.5	1209.3	1206.5
12.5°	1206.5	1202.7	1183.8	1185.7	1181.0
15°	1184.8	1179.1	1159.3	1158.4	1149.9
17.5°	1162.2	1153.7	1130.1	1125.4	1118.8
20°	1134.8	1125.4	1095.2	1090.5	1082.0
22.5°	1104.7	1095.2	1063.2	1052.8	1046.2
25°	1074.5	1060.4	1025.5	1013.2	1002.9
27.5°	1040.6	1023.6	986.8	970.8	960.5
30°	1002.9	985.0	945.4	923.7	915.2
32.5°	966.1	944.4	903.9	879.4	868.1
35°	925.6	903.0	860.5	833.2	820.0
37.5°	886.9	859.6	816.2	784.2	771.0
40°	845.5	817.2	771.9	736.1	724.8
42.5°	802.1	772.9	725.8	691.8	673.9
45°	757.8	730.5	678.6	640.9	626.8
47.5°	711.6	683.3	631.5	592.9	576.8
50°	668.3	637.2	583.4	543.8	529.7
52.5°	621.1	589.1	539.1	495.8	481.6
55°	575.0	544.8	492.0	449.6	434.5
57.5°	527.8	495.8	444.9	403.4	390.2
60°	482.6	449.6	398.7	357.2	343.1
62.5°	434.5	403.4	351.6	313.9	299.7
65°	389.3	357.2	307.3	269.6	255.4
67.5°	344.0	312.0	263.9	228.1	216.8
70°	297.8	265.8	218.7	189.5	178.1
72.5°	252.6	221.5	178.1	151.7	145.2
75°	207.4	179.1	139.5	118.8	112.2
77.5°	161.2	138.6	105.6	89.5	83.9
80°	122.5	99.9	73.5	65.0	63.2
82.5°	84.8	65.0	49.0	46.2	45.2
85°	51.8	34.9	30.2	29.2	28.3
87.5°	21.7	15.1	14.1	14.1	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)