

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: P243697

Luminaire Tested: **S125DR-H850D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243697  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H850D927-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2484.9 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')  
CIE Type: Direct

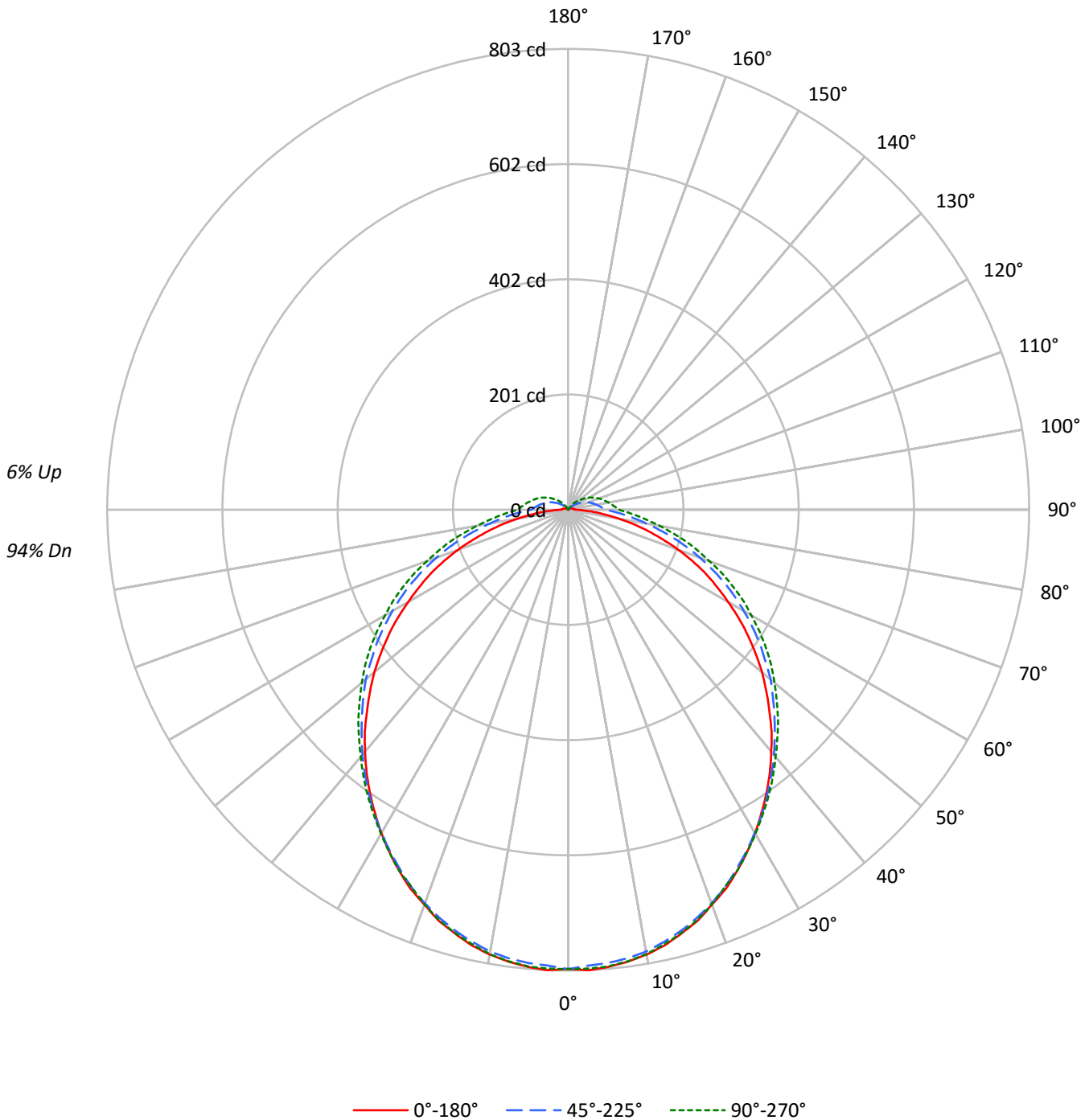
Input Watts (W): 23.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

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

	0°	45°	90°
0°	5688	5688	5688
5°	5694	5576	5595
10°	5658	5482	5468
15°	5590	5351	5313
20°	5495	5207	5134
25°	5398	5039	4960
30°	5276	4869	4767
35°	5147	4703	4595
40°	5015	4542	4424
45°	4877	4380	4283
50°	4752	4247	4134
55°	4597	4082	3998
60°	4409	3904	3823
65°	4257	3716	3654
70°	4005	3484	3431
75°	3666	3210	3234
80°	3265	2916	2987
85°	2906	2728	2842



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.7	3.0
10°-20°	215.2	8.7
20°-30°	320.3	12.9
30°-40°	379.4	15.3
40°-50°	392.6	15.8
50°-60°	362.1	14.6
60°-70°	292.6	11.8
70°-80°	195.5	7.9
80°-90°	100.9	4.1
90°-100°	56.6	2.3
100°-110°	42.0	1.7
110°-120°	27.9	1.1
120°-130°	15.6	0.6
130°-140°	7.0	0.3
140°-150°	1.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	611.1	24.6
0°-40°	990.6	39.9
0°-60°	1745.3	70.2
0°-90°	2334.3	93.9
90°-120°	126.5	5.1
90°-150°	150.6	6.1
90°-180°	151.0	6.1
0°-180°	2484.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	800	799	793	799	799	76
15°	764	766	760	764	763	215
25°	695	698	692	696	695	320
35°	602	606	605	608	609	377
45°	496	504	508	516	517	383
55°	382	394	408	417	421	342
65°	265	280	300	313	317	261
75°	144	166	189	206	212	153
85°	44	70	97	114	120	46
90°	13	37	64	82	88	9
95°	10	31	57	74	79	8
105°	7	20	44	59	64	8
115°	5	10	30	44	50	5
125°	3	3	18	29	34	3
135°	2	2	7	17	20	1
145°	1	0	0	4	7	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	800.3	800.3	800.3	800.3	800.3
2.5°	803.3	801.0	795.1	801.0	800.3
5°	799.6	798.8	792.9	798.8	798.8
7.5°	794.4	793.6	788.5	794.4	793.6
10°	787.0	787.0	781.8	786.2	786.2
12.5°	777.4	777.4	771.4	776.6	775.1
15°	764.1	766.3	759.6	764.1	763.3
17.5°	750.7	750.7	745.6	749.3	749.3
20°	732.2	735.2	730.0	733.7	731.5
22.5°	716.0	717.5	712.3	716.0	712.3
25°	695.3	698.2	692.3	696.0	695.3
27.5°	673.8	676.0	671.6	676.0	673.8
30°	650.9	653.1	650.1	653.1	652.4
32.5°	626.5	630.9	628.7	630.9	630.2
35°	602.1	606.5	605.0	608.0	608.7
37.5°	576.9	581.4	581.4	585.1	585.8
40°	550.3	556.2	557.7	562.9	562.1
42.5°	524.4	530.3	532.5	539.2	539.2
45°	495.6	503.7	508.1	516.3	517.0
47.5°	468.2	477.1	483.7	491.1	492.6
50°	440.8	449.0	460.1	467.5	468.9
52.5°	411.2	421.6	432.7	443.0	446.0
55°	382.4	394.2	407.5	417.2	420.9
57.5°	352.8	365.4	380.2	392.0	395.0
60°	321.7	336.5	353.6	365.4	368.3
62.5°	292.9	309.2	326.9	339.5	343.9
65°	264.8	280.3	299.6	312.9	316.6
67.5°	234.5	251.5	271.4	286.2	289.9
70°	204.1	222.6	244.1	258.1	261.8
72.5°	173.1	193.8	216.7	232.2	236.7
75°	144.2	165.7	189.3	205.6	211.5
77.5°	116.9	139.1	162.7	179.7	184.9
80°	89.5	112.4	138.3	156.1	161.2
82.5°	65.1	89.5	116.1	133.9	139.1
85°	44.4	69.5	96.9	113.9	119.8
87.5°	27.4	51.8	79.9	96.9	102.8
90°	12.6	37.0	64.3	82.1	88.0
92.5°	11.1	34.0	60.7	78.4	83.6
95°	10.4	31.1	57.0	74.0	79.1
97.5°	9.6	28.1	53.3	70.3	75.4
100°	8.9	25.1	50.3	66.6	71.7
102.5°	8.1	22.9	46.6	62.9	67.3
105°	7.4	20.0	43.6	59.2	64.3
107.5°	6.7	17.0	40.7	55.5	60.7
110°	5.9	14.8	37.0	51.8	57.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	12.6	34.0	48.1	53.3
115°	5.2	10.4	30.3	44.4	49.6
117.5°	4.4	8.1	26.6	40.7	45.9
120°	3.7	5.9	23.7	37.0	42.2
122.5°	3.7	4.4	20.7	33.3	38.5
125°	3.0	3.0	17.8	28.8	34.0
127.5°	3.0	2.2	14.8	25.9	29.6
130°	2.2	1.5	12.6	22.9	26.6
132.5°	2.2	1.5	9.6	20.0	23.7
135°	1.5	1.5	6.7	17.0	20.0
137.5°	1.5	0.7	4.4	13.3	17.0
140°	0.7	0.7	1.5	10.4	13.3
142.5°	0.7	0.7	0.7	7.4	10.4
145°	0.7	0.0	0.0	4.4	6.7
147.5°	0.7	0.0	0.0	1.5	3.7
150°	0.0	0.0	0.0	0.0	0.7
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)