

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: P243698

Luminaire Tested: **S125DR-H1090D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243698  
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-H1090D927-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: 3204.6 lumens  
Efficiency: N/A  
Efficacy: 101.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')  
CIE Type: Direct

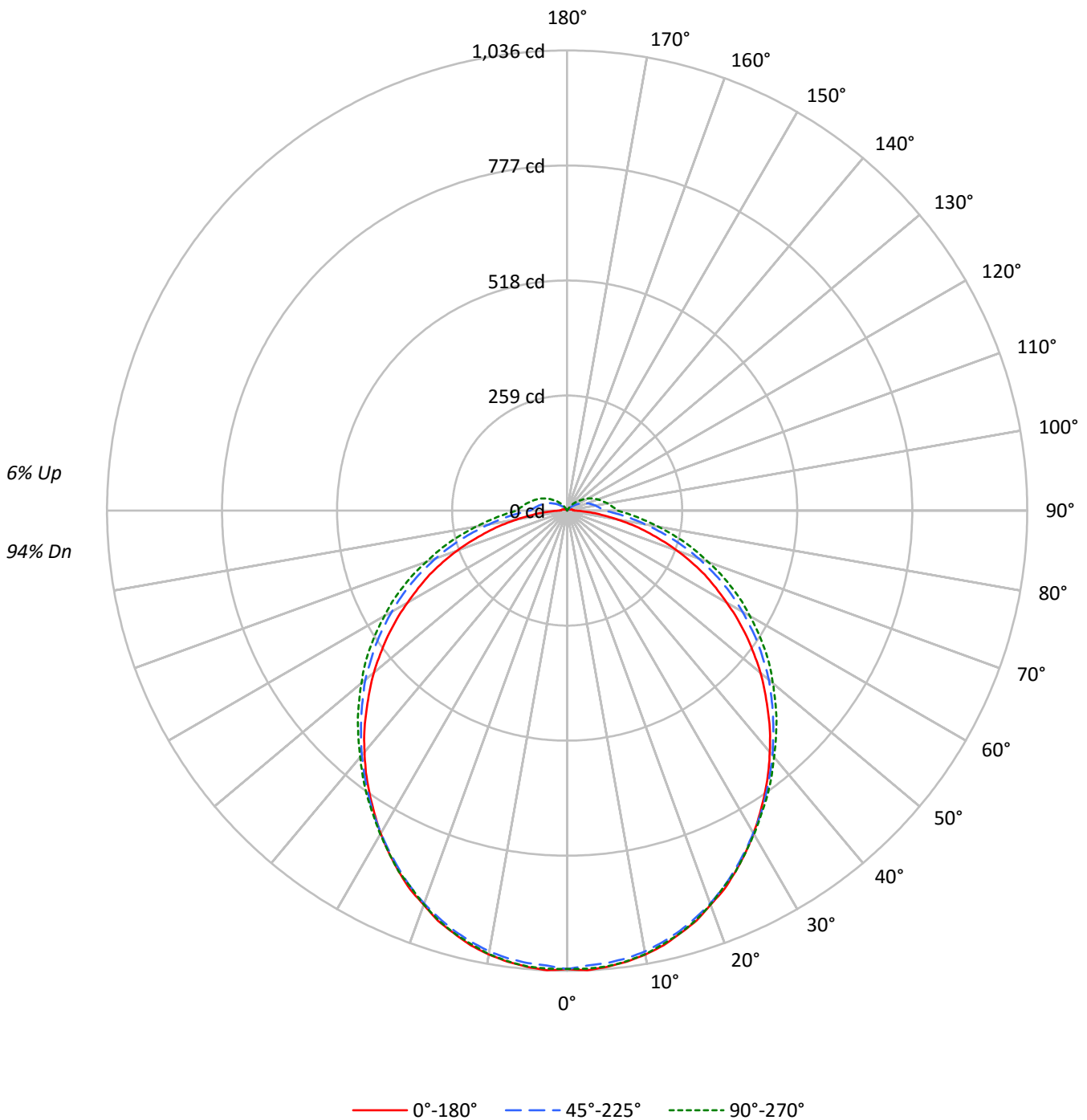
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	7335	7335	7335
5°	7343	7191	7215
10°	7297	7069	7053
15°	7208	6901	6852
20°	7087	6715	6622
25°	6961	6498	6395
30°	6804	6279	6148
35°	6636	6065	5926
40°	6468	5857	5705
45°	6289	5649	5524
50°	6129	5477	5332
55°	5928	5265	5156
60°	5686	5034	4931
65°	5490	4791	4712
70°	5166	4493	4425
75°	4728	4141	4172
80°	4210	3761	3852
85°	3744	3519	3666



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.7	3.0
10°-20°	277.5	8.7
20°-30°	413.0	12.9
30°-40°	489.3	15.3
40°-50°	506.3	15.8
50°-60°	467.0	14.6
60°-70°	377.4	11.8
70°-80°	252.2	7.9
80°-90°	130.1	4.1
90°-100°	73.0	2.3
100°-110°	54.1	1.7
110°-120°	36.0	1.1
120°-130°	20.2	0.6
130°-140°	9.0	0.3
140°-150°	1.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	788.2	24.6
0°-40°	1277.5	39.9
0°-60°	2250.7	70.2
0°-90°	3010.4	93.9
90°-120°	163.1	5.1
90°-150°	194.3	6.1
90°-180°	194.0	6.1
0°-180°	3204.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1032	1032	1032	1032	1032	
5°	1031	1030	1022	1030	1030	98
15°	985	988	980	985	984	278
25°	897	900	893	898	897	413
35°	776	782	780	784	785	486
45°	639	650	655	666	667	494
55°	493	508	526	538	543	441
65°	342	362	386	404	408	337
75°	186	214	244	265	273	198
85°	57	90	125	147	154	59
90°	16	48	83	106	114	11
95°	13	40	73	95	102	11
105°	10	26	56	76	83	10
115°	7	13	39	57	64	6
125°	4	4	23	37	44	4
135°	2	2	9	22	26	2
145°	1	0	0	6	9	1
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°	1032.1	1032.1	1032.1	1032.1	1032.1
2.5°	1035.9	1033.0	1025.4	1033.0	1032.1
5°	1031.1	1030.2	1022.5	1030.2	1030.2
7.5°	1024.5	1023.5	1016.8	1024.5	1023.5
10°	1014.9	1014.9	1008.2	1014.0	1014.0
12.5°	1002.5	1002.5	994.9	1001.6	999.7
15°	985.3	988.2	979.6	985.3	984.4
17.5°	968.2	968.2	961.5	966.3	966.3
20°	944.3	948.1	941.5	946.2	943.4
22.5°	923.3	925.3	918.6	923.3	918.6
25°	896.6	900.5	892.8	897.6	896.6
27.5°	869.0	871.8	866.1	871.8	869.0
30°	839.4	842.3	838.4	842.3	841.3
32.5°	807.9	813.6	810.8	813.6	812.7
35°	776.4	782.2	780.3	784.1	785.0
37.5°	744.0	749.7	749.7	754.5	755.5
40°	709.7	717.3	719.2	725.9	724.9
42.5°	676.3	683.9	686.8	695.4	695.4
45°	639.1	649.6	655.3	665.8	666.8
47.5°	603.8	615.2	623.8	633.4	635.3
50°	568.5	579.0	593.3	602.8	604.8
52.5°	530.3	543.7	558.0	571.4	575.2
55°	493.1	508.4	525.6	538.0	542.8
57.5°	455.0	471.2	490.3	505.5	509.4
60°	414.9	434.0	455.9	471.2	475.0
62.5°	377.7	398.7	421.6	437.8	443.5
65°	341.5	361.5	386.3	403.5	408.3
67.5°	302.4	324.3	350.1	369.1	373.9
70°	263.3	287.1	314.8	332.9	337.7
72.5°	223.2	249.9	279.5	299.5	305.2
75°	186.0	213.7	244.2	265.2	272.8
77.5°	150.7	179.3	209.9	231.8	238.5
80°	115.4	145.0	178.4	201.3	207.9
82.5°	83.9	115.4	149.8	172.6	179.3
85°	57.2	89.7	125.0	146.9	154.5
87.5°	35.3	66.8	103.0	125.0	132.6
90°	16.2	47.7	83.0	105.9	113.5
92.5°	14.3	43.9	78.2	101.1	107.8
95°	13.4	40.1	73.4	95.4	102.1
97.5°	12.4	36.2	68.7	90.6	97.3
100°	11.4	32.4	64.9	85.8	92.5
102.5°	10.5	29.6	60.1	81.1	86.8
105°	9.5	25.8	56.3	76.3	83.0
107.5°	8.6	21.9	52.5	71.5	78.2
110°	7.6	19.1	47.7	66.8	73.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	6.7	16.2	43.9	62.0	68.7
115°	6.7	13.4	39.1	57.2	63.9
117.5°	5.7	10.5	34.3	52.5	59.1
120°	4.8	7.6	30.5	47.7	54.4
122.5°	4.8	5.7	26.7	42.9	49.6
125°	3.8	3.8	22.9	37.2	43.9
127.5°	3.8	2.9	19.1	33.4	38.2
130°	2.9	1.9	16.2	29.6	34.3
132.5°	2.9	1.9	12.4	25.8	30.5
135°	1.9	1.9	8.6	21.9	25.8
137.5°	1.9	1.0	5.7	17.2	21.9
140°	1.0	1.0	1.9	13.4	17.2
142.5°	1.0	1.0	1.0	9.5	13.4
145°	1.0	0.0	0.0	5.7	8.6
147.5°	1.0	0.0	0.0	1.9	4.8
150°	0.0	0.0	0.0	0.0	1.0
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)