

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: P243720

Luminaire Tested: **S125DR-H610D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243720  
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-H610D935-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1928.4 lumens  
Efficiency: N/A  
Efficacy: 112.1 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

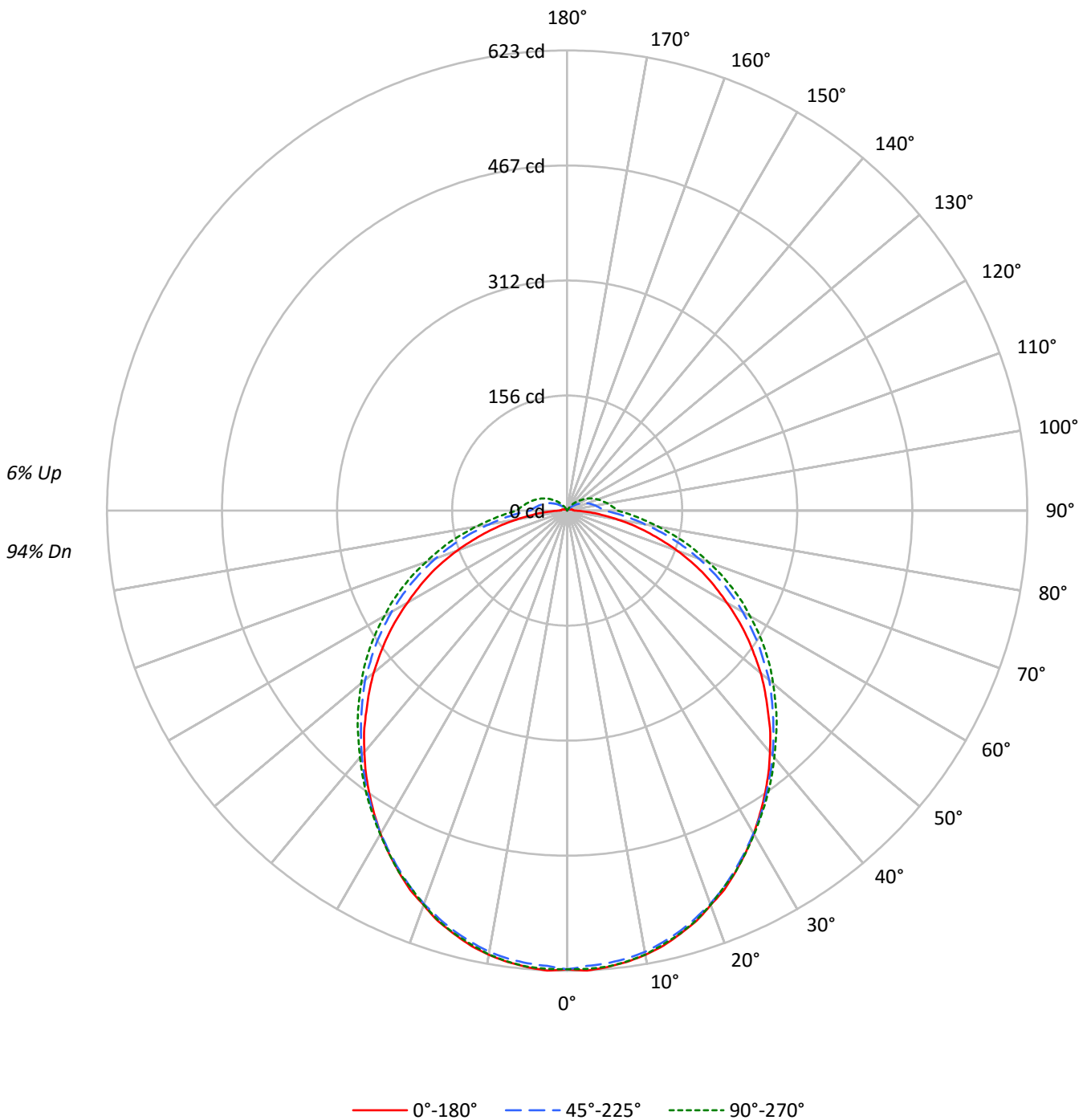
Input Watts (W): 17.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4414	4414	4414
5°	4419	4327	4342
10°	4391	4254	4244
15°	4338	4153	4123
20°	4265	4041	3985
25°	4190	3911	3849
30°	4094	3779	3700
35°	3994	3649	3566
40°	3892	3525	3433
45°	3784	3399	3324
50°	3688	3296	3208
55°	3568	3168	3102
60°	3422	3030	2968
65°	3304	2884	2836
70°	3108	2703	2663
75°	2845	2491	2511
80°	2535	2262	2318
85°	2252	2117	2207



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	3.0
10°-20°	167.0	8.7
20°-30°	248.5	12.9
30°-40°	294.5	15.3
40°-50°	304.7	15.8
50°-60°	281.0	14.6
60°-70°	227.1	11.8
70°-80°	151.7	7.9
80°-90°	78.3	4.1
90°-100°	43.9	2.3
100°-110°	32.6	1.7
110°-120°	21.7	1.1
120°-130°	12.1	0.6
130°-140°	5.4	0.3
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	474.3	24.6
0°-40°	768.8	39.9
0°-60°	1354.4	70.2
0°-90°	1811.5	93.9
90°-120°	98.2	5.1
90°-150°	116.9	6.1
90°-180°	117.0	6.1
0°-180°	1928.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	620	620	615	620	620	59
15°	593	595	590	593	592	167
25°	540	542	537	540	540	248
35°	467	471	470	472	472	292
45°	385	391	394	401	401	297
55°	297	306	316	324	327	265
65°	206	218	232	243	246	203
75°	112	129	147	160	164	119
85°	34	54	75	88	93	35
90°	10	29	50	64	68	7
95°	8	24	44	57	61	6
105°	6	16	34	46	50	6
115°	4	8	24	34	38	4
125°	2	2	14	22	26	2
135°	1	1	5	13	16	1
145°	1	0	0	3	5	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°	621.1	621.1	621.1	621.1	621.1
2.5°	623.4	621.7	617.1	621.7	621.1
5°	620.5	619.9	615.3	619.9	619.9
7.5°	616.5	615.9	611.9	616.5	615.9
10°	610.7	610.7	606.7	610.2	610.2
12.5°	603.3	603.3	598.7	602.7	601.6
15°	593.0	594.7	589.5	593.0	592.4
17.5°	582.6	582.6	578.6	581.5	581.5
20°	568.3	570.6	566.6	569.4	567.7
22.5°	555.6	556.8	552.8	555.6	552.8
25°	539.6	541.9	537.3	540.1	539.6
27.5°	522.9	524.6	521.2	524.6	522.9
30°	505.1	506.9	504.6	506.9	506.3
32.5°	486.2	489.6	487.9	489.6	489.1
35°	467.2	470.7	469.5	471.8	472.4
37.5°	447.7	451.2	451.2	454.0	454.6
40°	427.1	431.7	432.8	436.8	436.2
42.5°	407.0	411.6	413.3	418.5	418.5
45°	384.6	390.9	394.3	400.7	401.2
47.5°	363.4	370.2	375.4	381.1	382.3
50°	342.1	348.4	357.0	362.8	363.9
52.5°	319.2	327.2	335.8	343.8	346.1
55°	296.8	305.9	316.3	323.7	326.6
57.5°	273.8	283.6	295.0	304.2	306.5
60°	249.7	261.2	274.4	283.6	285.9
62.5°	227.3	239.9	253.7	263.5	266.9
65°	205.5	217.6	232.5	242.8	245.7
67.5°	182.0	195.2	210.7	222.1	225.0
70°	158.4	172.8	189.4	200.3	203.2
72.5°	134.3	150.4	168.2	180.2	183.7
75°	111.9	128.6	146.9	159.6	164.2
77.5°	90.7	107.9	126.3	139.5	143.5
80°	69.5	87.2	107.3	121.1	125.1
82.5°	50.5	69.5	90.1	103.9	107.9
85°	34.4	54.0	75.2	88.4	93.0
87.5°	21.2	40.2	62.0	75.2	79.8
90°	9.8	28.7	49.9	63.7	68.3
92.5°	8.6	26.4	47.1	60.8	64.9
95°	8.0	24.1	44.2	57.4	61.4
97.5°	7.5	21.8	41.3	54.5	58.5
100°	6.9	19.5	39.0	51.7	55.7
102.5°	6.3	17.8	36.2	48.8	52.2
105°	5.7	15.5	33.9	45.9	49.9
107.5°	5.2	13.2	31.6	43.1	47.1
110°	4.6	11.5	28.7	40.2	44.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	9.8	26.4	37.3	41.3
115°	4.0	8.0	23.5	34.4	38.5
117.5°	3.4	6.3	20.7	31.6	35.6
120°	2.9	4.6	18.4	28.7	32.7
122.5°	2.9	3.4	16.1	25.8	29.8
125°	2.3	2.3	13.8	22.4	26.4
127.5°	2.3	1.7	11.5	20.1	23.0
130°	1.7	1.1	9.8	17.8	20.7
132.5°	1.7	1.1	7.5	15.5	18.4
135°	1.1	1.1	5.2	13.2	15.5
137.5°	1.1	0.6	3.4	10.3	13.2
140°	0.6	0.6	1.1	8.0	10.3
142.5°	0.6	0.6	0.6	5.7	8.0
145°	0.6	0.0	0.0	3.4	5.2
147.5°	0.6	0.0	0.0	1.1	2.9
150°	0.0	0.0	0.0	0.0	0.6
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)