

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: P243725

Luminaire Tested: **S125DR-H610D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243725  
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-H610D940-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1997.3 lumens  
Efficiency: N/A  
Efficacy: 116.1 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

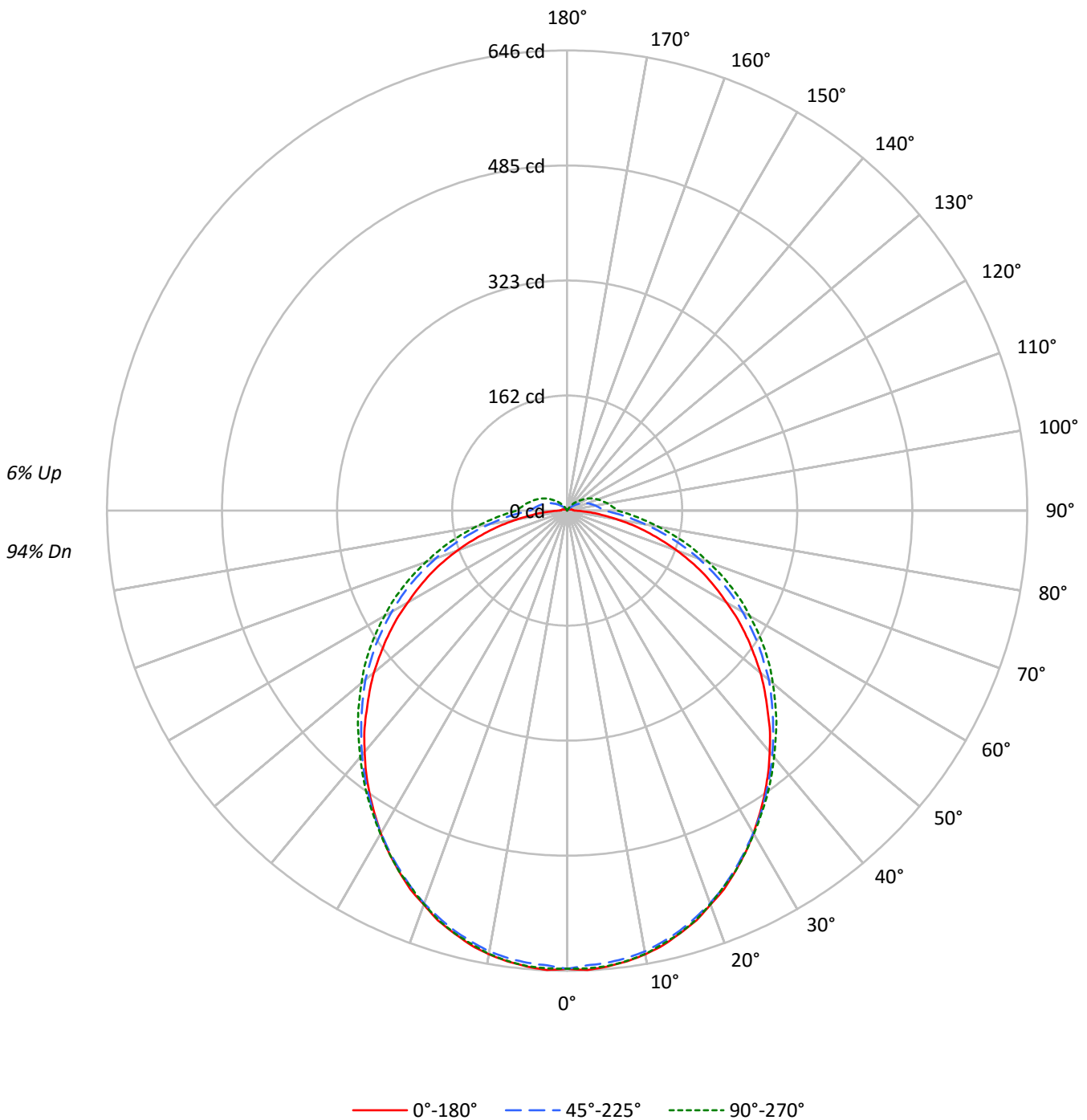
Input Watts (W): 17.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4571	4571	4571
5°	4576	4482	4496
10°	4548	4406	4395
15°	4493	4301	4270
20°	4417	4185	4126
25°	4339	4050	3986
30°	4240	3914	3831
35°	4136	3780	3694
40°	4031	3650	3556
45°	3919	3521	3442
50°	3820	3414	3323
55°	3694	3282	3213
60°	3544	3138	3074
65°	3421	2987	2936
70°	3220	2800	2757
75°	2946	2581	2600
80°	2623	2345	2401
85°	2337	2193	2285



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.9	3.0
10°-20°	172.9	8.7
20°-30°	257.4	12.9
30°-40°	305.0	15.3
40°-50°	315.5	15.8
50°-60°	291.0	14.6
60°-70°	235.2	11.8
70°-80°	157.2	7.9
80°-90°	81.1	4.1
90°-100°	45.5	2.3
100°-110°	33.7	1.7
110°-120°	22.5	1.1
120°-130°	12.6	0.6
130°-140°	5.6	0.3
140°-150°	1.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	491.2	24.6
0°-40°	796.2	39.9
0°-60°	1402.8	70.2
0°-90°	1876.2	93.9
90°-120°	101.7	5.1
90°-150°	121.1	6.1
90°-180°	121.0	6.1
0°-180°	1997.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	643	643	643	643	643	
5°	643	642	637	642	642	61
15°	614	616	610	614	614	173
25°	559	561	556	559	559	257
35°	484	488	486	489	489	303
45°	398	405	408	415	416	308
55°	307	317	328	335	338	275
65°	213	225	241	252	254	210
75°	116	133	152	165	170	123
85°	36	56	78	92	96	37
90°	10	30	52	66	71	7
95°	8	25	46	59	64	7
105°	6	16	35	48	52	6
115°	4	8	24	36	40	4
125°	2	2	14	23	27	2
135°	1	1	5	14	16	1
145°	1	0	0	4	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°	643.2	643.2	643.2	643.2	643.2
2.5°	645.6	643.8	639.1	643.8	643.2
5°	642.6	642.0	637.3	642.0	642.0
7.5°	638.5	637.9	633.7	638.5	637.9
10°	632.5	632.5	628.4	631.9	631.9
12.5°	624.8	624.8	620.1	624.2	623.0
15°	614.1	615.9	610.5	614.1	613.5
17.5°	603.4	603.4	599.2	602.2	602.2
20°	588.5	590.9	586.8	589.7	587.9
22.5°	575.5	576.7	572.5	575.5	572.5
25°	558.8	561.2	556.4	559.4	558.8
27.5°	541.6	543.4	539.8	543.4	541.6
30°	523.1	524.9	522.6	524.9	524.3
32.5°	503.5	507.1	505.3	507.1	506.5
35°	483.9	487.5	486.3	488.7	489.3
37.5°	463.7	467.3	467.3	470.2	470.8
40°	442.3	447.1	448.2	452.4	451.8
42.5°	421.5	426.2	428.0	433.4	433.4
45°	398.3	404.8	408.4	415.0	415.5
47.5°	376.3	383.4	388.8	394.7	395.9
50°	354.3	360.9	369.8	375.7	376.9
52.5°	330.5	338.9	347.8	356.1	358.5
55°	307.3	316.9	327.6	335.3	338.3
57.5°	283.6	293.7	305.6	315.1	317.5
60°	258.6	270.5	284.2	293.7	296.1
62.5°	235.4	248.5	262.8	272.9	276.4
65°	212.8	225.3	240.8	251.5	254.4
67.5°	188.5	202.1	218.2	230.1	233.0
70°	164.1	178.9	196.2	207.5	210.4
72.5°	139.1	155.8	174.2	186.7	190.2
75°	115.9	133.2	152.2	165.3	170.0
77.5°	93.9	111.8	130.8	144.5	148.6
80°	71.9	90.4	111.2	125.4	129.6
82.5°	52.3	71.9	93.3	107.6	111.8
85°	35.7	55.9	77.9	91.6	96.3
87.5°	22.0	41.6	64.2	77.9	82.6
90°	10.1	29.7	51.7	66.0	70.7
92.5°	8.9	27.3	48.7	63.0	67.2
95°	8.3	25.0	45.8	59.4	63.6
97.5°	7.7	22.6	42.8	56.5	60.6
100°	7.1	20.2	40.4	53.5	57.7
102.5°	6.5	18.4	37.5	50.5	54.1
105°	5.9	16.1	35.1	47.6	51.7
107.5°	5.4	13.7	32.7	44.6	48.7
110°	4.8	11.9	29.7	41.6	45.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.2	10.1	27.3	38.6	42.8
115°	4.2	8.3	24.4	35.7	39.8
117.5°	3.6	6.5	21.4	32.7	36.9
120°	3.0	4.8	19.0	29.7	33.9
122.5°	3.0	3.6	16.6	26.8	30.9
125°	2.4	2.4	14.3	23.2	27.3
127.5°	2.4	1.8	11.9	20.8	23.8
130°	1.8	1.2	10.1	18.4	21.4
132.5°	1.8	1.2	7.7	16.1	19.0
135°	1.2	1.2	5.4	13.7	16.1
137.5°	1.2	0.6	3.6	10.7	13.7
140°	0.6	0.6	1.2	8.3	10.7
142.5°	0.6	0.6	0.6	5.9	8.3
145°	0.6	0.0	0.0	3.6	5.4
147.5°	0.6	0.0	0.0	1.2	3.0
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)