

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: P243724

Luminaire Tested: **S125DR-H375D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243724  
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-H375D940-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: 1254.2 lumens  
Efficiency: N/A  
Efficacy: 112.0 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

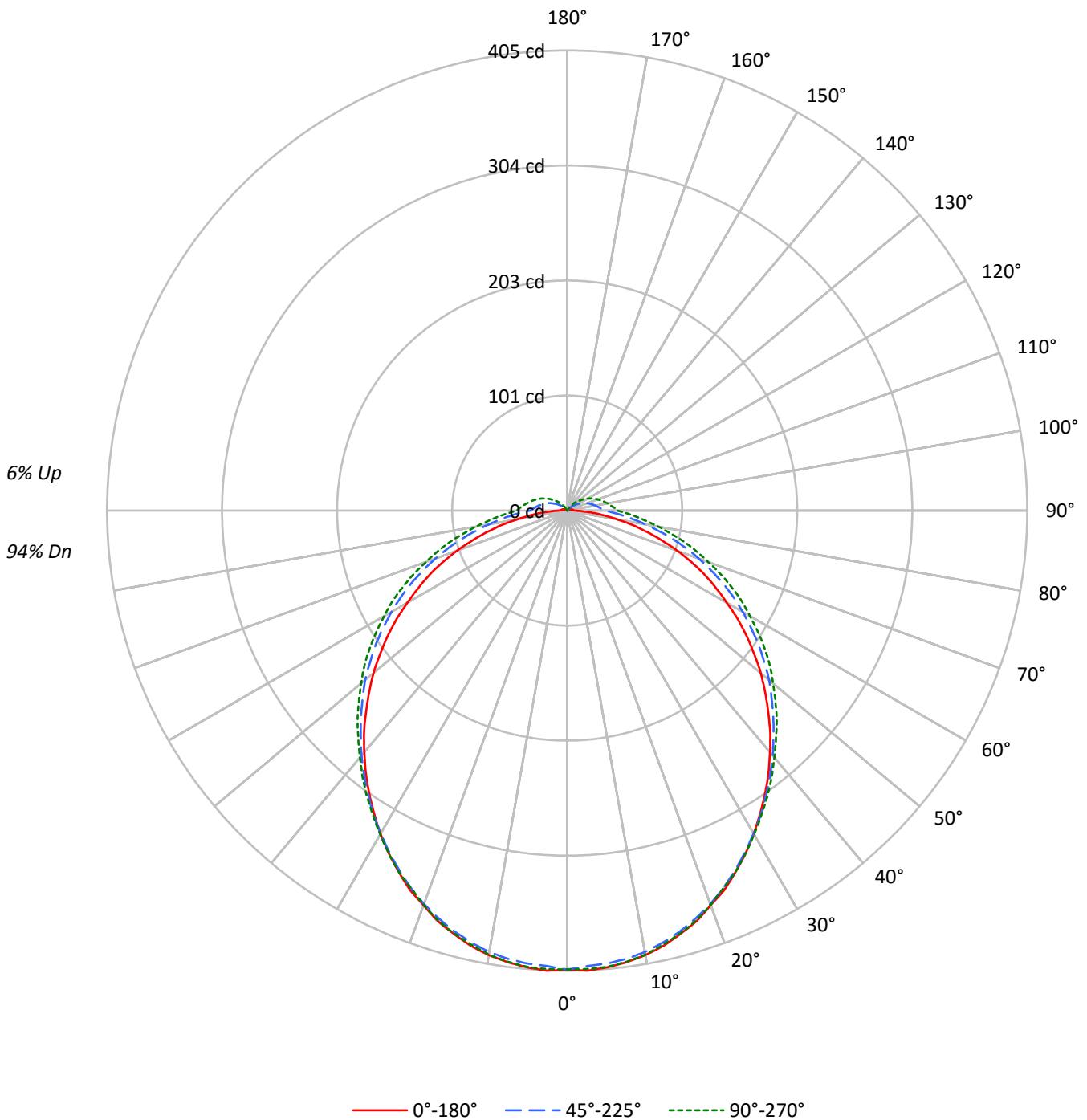
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2871	2871	2871
5°	2873	2814	2824
10°	2856	2767	2760
15°	2821	2701	2681
20°	2774	2628	2591
25°	2724	2543	2503
30°	2663	2457	2406
35°	2598	2374	2319
40°	2531	2292	2233
45°	2461	2211	2162
50°	2399	2143	2087
55°	2320	2060	2018
60°	2226	1970	1930
65°	2148	1875	1844
70°	2021	1758	1731
75°	1851	1621	1633
80°	1649	1472	1508
85°	1466	1376	1435



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.2	3.0
10°-20°	108.6	8.7
20°-30°	161.6	12.9
30°-40°	191.5	15.3
40°-50°	198.1	15.8
50°-60°	182.7	14.6
60°-70°	147.7	11.8
70°-80°	98.7	7.9
80°-90°	50.9	4.1
90°-100°	28.6	2.3
100°-110°	21.2	1.7
110°-120°	14.1	1.1
120°-130°	7.9	0.6
130°-140°	3.5	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	308.5	24.6
0°-40°	500.0	39.9
0°-60°	880.8	70.2
0°-90°	1178.1	93.9
90°-120°	63.8	5.1
90°-150°	76.0	6.1
90°-180°	76.0	6.1
0°-180°	1254.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	404	403	400	403	403	38
15°	386	387	383	386	385	109
25°	351	352	349	351	351	162
35°	304	306	305	307	307	190
45°	250	254	256	261	261	193
55°	193	199	206	210	212	172
65°	134	142	151	158	160	132
75°	73	84	96	104	107	77
85°	22	35	49	58	60	23
90°	6	19	32	41	44	4
95°	5	16	29	37	40	4
105°	4	10	22	30	32	4
115°	3	5	15	22	25	2
125°	2	2	9	15	17	1
135°	1	1	3	9	10	1
145°	0	0	0	2	3	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°	403.9	403.9	403.9	403.9	403.9
2.5°	405.4	404.3	401.3	404.3	403.9
5°	403.5	403.2	400.2	403.2	403.2
7.5°	400.9	400.5	397.9	400.9	400.5
10°	397.2	397.2	394.6	396.8	396.8
12.5°	392.3	392.3	389.4	392.0	391.2
15°	385.6	386.7	383.4	385.6	385.2
17.5°	378.9	378.9	376.3	378.2	378.2
20°	369.6	371.1	368.4	370.3	369.2
22.5°	361.4	362.1	359.5	361.4	359.5
25°	350.9	352.4	349.4	351.3	350.9
27.5°	340.1	341.2	339.0	341.2	340.1
30°	328.5	329.6	328.1	329.6	329.2
32.5°	316.2	318.4	317.3	318.4	318.1
35°	303.9	306.1	305.4	306.9	307.2
37.5°	291.2	293.4	293.4	295.3	295.7
40°	277.7	280.7	281.5	284.1	283.7
42.5°	264.7	267.7	268.8	272.1	272.1
45°	250.1	254.2	256.5	260.6	260.9
47.5°	236.3	240.8	244.1	247.9	248.6
50°	222.5	226.6	232.2	235.9	236.7
52.5°	207.6	212.8	218.4	223.6	225.1
55°	193.0	199.0	205.7	210.5	212.4
57.5°	178.1	184.4	191.9	197.8	199.3
60°	162.4	169.9	178.4	184.4	185.9
62.5°	147.8	156.0	165.0	171.3	173.6
65°	133.6	141.5	151.2	157.9	159.8
67.5°	118.3	126.9	137.0	144.5	146.3
70°	103.0	112.4	123.2	130.3	132.1
72.5°	87.4	97.8	109.4	117.2	119.5
75°	72.8	83.6	95.6	103.8	106.8
77.5°	59.0	70.2	82.1	90.7	93.3
80°	45.2	56.7	69.8	78.8	81.4
82.5°	32.9	45.2	58.6	67.6	70.2
85°	22.4	35.1	48.9	57.5	60.5
87.5°	13.8	26.1	40.3	48.9	51.9
90°	6.3	18.7	32.5	41.4	44.4
92.5°	5.6	17.2	30.6	39.6	42.2
95°	5.2	15.7	28.7	37.3	39.9
97.5°	4.9	14.2	26.9	35.5	38.1
100°	4.5	12.7	25.4	33.6	36.2
102.5°	4.1	11.6	23.5	31.7	34.0
105°	3.7	10.1	22.0	29.9	32.5
107.5°	3.4	8.6	20.5	28.0	30.6
110°	3.0	7.5	18.7	26.1	28.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	6.3	17.2	24.3	26.9
115°	2.6	5.2	15.3	22.4	25.0
117.5°	2.2	4.1	13.4	20.5	23.1
120°	1.9	3.0	11.9	18.7	21.3
122.5°	1.9	2.2	10.5	16.8	19.4
125°	1.5	1.5	9.0	14.6	17.2
127.5°	1.5	1.1	7.5	13.1	14.9
130°	1.1	0.7	6.3	11.6	13.4
132.5°	1.1	0.7	4.9	10.1	11.9
135°	0.7	0.7	3.4	8.6	10.1
137.5°	0.7	0.4	2.2	6.7	8.6
140°	0.4	0.4	0.7	5.2	6.7
142.5°	0.4	0.4	0.4	3.7	5.2
145°	0.4	0.0	0.0	2.2	3.4
147.5°	0.4	0.0	0.0	0.7	1.9
150°	0.0	0.0	0.0	0.0	0.4
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)