

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242883

Luminaire Tested: S125RDRP-S375D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242883  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S375D840-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

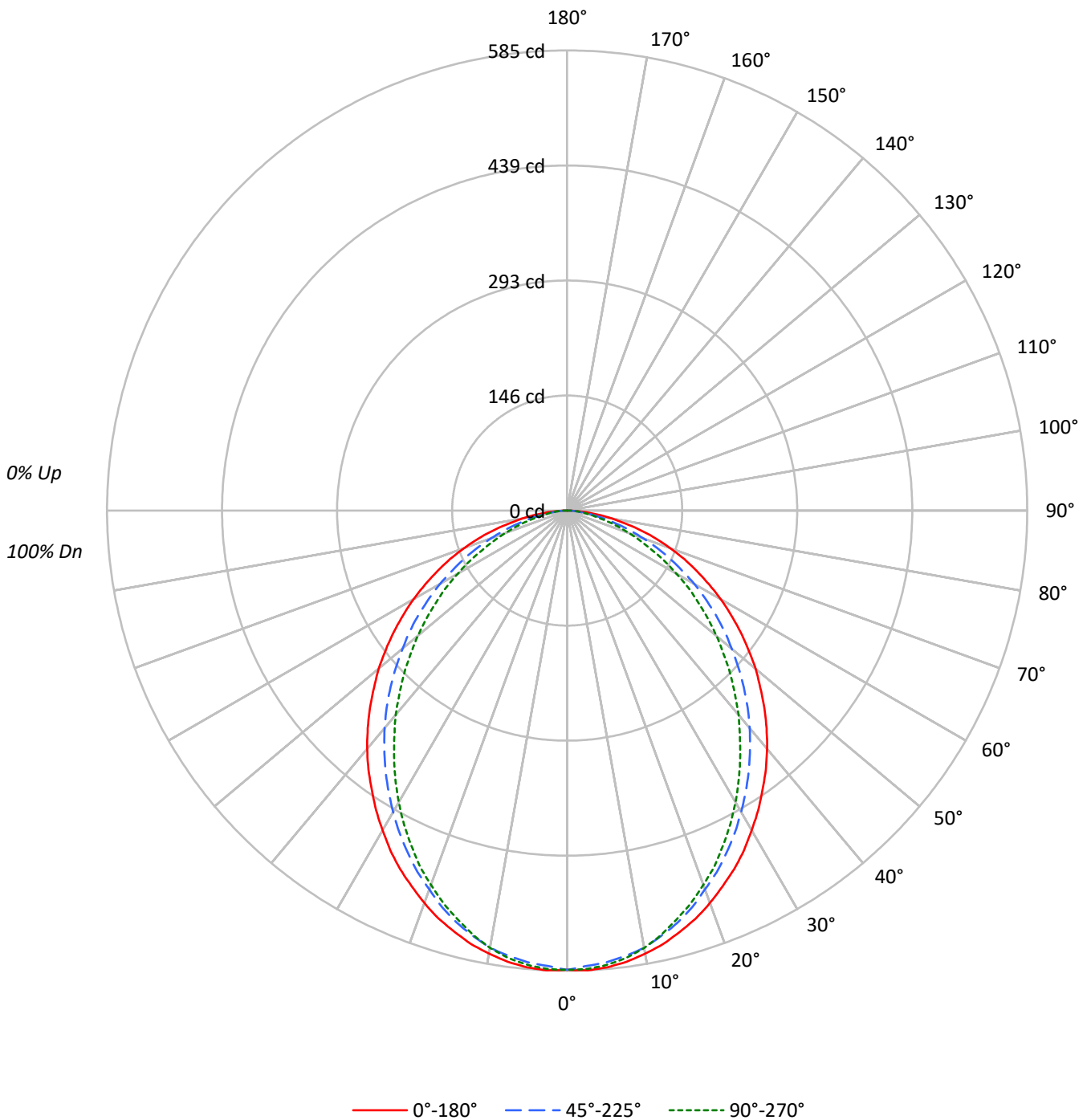
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1379.3 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.6  
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: 24 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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36					36			
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33					33			
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29					29			
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27					27			

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

	0°	45°	90°
0°	4149	4149	4149
5°	4159	4112	4137
10°	4127	4073	4073
15°	4078	3990	3958
20°	4015	3876	3829
25°	3942	3762	3680
30°	3851	3630	3513
35°	3757	3493	3328
40°	3669	3350	3146
45°	3563	3191	2947
50°	3456	3017	2740
55°	3333	2852	2519
60°	3210	2651	2281
65°	3062	2417	2010
70°	2895	2126	1731
75°	2664	1793	1442
80°	2345	1408	1207
85°	1982	1150	1076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3563 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.9	4.0
10°-20°	153.6	11.1
20°-30°	222.6	16.1
30°-40°	253.7	18.4
40°-50°	247.2	17.9
50°-60°	208.1	15.1
60°-70°	145.8	10.6
70°-80°	74.7	5.4
80°-90°	18.6	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	431.1	31.3
0°-40°	684.8	49.6
0°-60°	1140.1	82.7
0°-90°	1379.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1379.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	583	581	576	581	580	55
15°	554	552	542	542	538	156
25°	503	496	480	474	469	231
35°	433	422	403	390	384	271
45°	354	342	318	300	293	273
55°	269	255	230	210	203	241
65°	182	167	144	126	120	180
75°	97	84	65	56	52	103
85°	24	16	14	14	13	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	583.8	583.8	583.8	583.8	583.8
2.5°	585.1	583.8	579.4	583.8	583.4
5°	582.9	581.1	576.3	580.7	579.8
7.5°	578.5	576.7	571.0	574.5	573.7
10°	571.9	570.6	564.4	565.7	564.4
12.5°	564.4	562.6	553.8	554.7	552.5
15°	554.2	551.6	542.3	541.9	537.9
17.5°	543.7	539.7	528.7	526.5	523.4
20°	530.9	526.5	512.4	510.2	506.2
22.5°	516.8	512.4	497.4	492.5	489.4
25°	502.7	496.0	479.7	474.0	469.2
27.5°	486.8	478.9	461.7	454.2	449.3
30°	469.2	460.8	442.3	432.1	428.1
32.5°	452.0	441.8	422.9	411.4	406.1
35°	433.0	422.4	402.6	389.8	383.6
37.5°	414.9	402.1	381.8	366.9	360.7
40°	395.5	382.3	361.1	344.4	339.1
42.5°	375.2	361.6	339.5	323.6	315.3
45°	354.5	341.7	317.5	299.8	293.2
47.5°	332.9	319.7	295.4	277.3	269.8
50°	312.6	298.1	272.9	254.4	247.8
52.5°	290.6	275.6	252.2	231.9	225.3
55°	269.0	254.9	230.2	210.3	203.3
57.5°	246.9	231.9	208.1	188.7	182.5
60°	225.8	210.3	186.5	167.1	160.5
62.5°	203.3	188.7	164.5	146.8	140.2
65°	182.1	167.1	143.7	126.1	119.5
67.5°	160.9	145.9	123.5	106.7	101.4
70°	139.3	124.3	102.3	88.6	83.3
72.5°	118.2	103.6	83.3	71.0	67.9
75°	97.0	83.8	65.3	55.6	52.5
77.5°	75.4	64.8	49.4	41.9	39.2
80°	57.3	46.7	34.4	30.4	29.5
82.5°	39.7	30.4	22.9	21.6	21.2
85°	24.3	16.3	14.1	13.7	13.2
87.5°	10.1	7.1	6.6	6.6	6.2
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.28	17.86	16.65	18.17	18.49	14.71	16.29	15.08	16.60	16.92
	3H	18.07	19.48	18.44	19.81	20.17	16.03	17.45	16.41	17.77	18.14
	4H	18.73	20.06	19.13	20.41	20.79	16.44	17.77	16.84	18.12	18.50
	6H	19.20	20.43	19.61	20.80	21.19	16.69	17.93	17.11	18.29	18.68
	8H	19.35	20.52	19.77	20.91	21.31	16.78	17.95	17.20	18.34	18.74
	12H	19.44	20.57	19.87	20.95	21.38	16.83	17.96	17.26	18.34	18.77
4H	2H	16.67	18.01	17.07	18.35	18.73	15.40	16.73	15.80	17.08	17.46
	3H	18.66	19.77	19.07	20.17	20.57	16.90	18.01	17.31	18.41	18.81
	4H	19.44	20.44	19.87	20.86	21.29	17.40	18.40	17.83	18.81	19.25
	6H	20.03	20.91	20.49	21.35	21.81	17.74	18.61	18.20	19.06	19.51
	8H	20.23	21.04	20.69	21.49	21.95	17.85	18.67	18.31	19.11	19.58
	12H	20.37	21.10	20.85	21.57	22.04	17.94	18.67	18.42	19.15	19.62
8H	4H	19.57	20.38	20.03	20.82	21.29	17.71	18.53	18.17	18.97	19.44
	6H	20.24	20.92	20.74	21.41	21.88	18.14	18.81	18.63	19.30	19.78
	8H	20.49	21.09	21.00	21.60	22.09	18.30	18.90	18.81	19.41	19.90
	12H	20.68	21.22	21.19	21.71	22.27	18.44	18.97	18.94	19.46	20.03
12H	4H	19.56	20.29	20.04	20.77	21.24	17.75	18.48	18.23	18.96	19.43
	6H	20.23	20.84	20.75	21.35	21.84	18.19	18.79	18.70	19.30	19.79
	8H	20.52	21.06	21.03	21.55	22.11	18.39	18.93	18.90	19.42	19.98