

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: P243695

Luminaire Tested: S125DRP-H375D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243695  
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  
Product Line: NEO-RAY  
Catalog Number: S125DRP-H375D927-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: -

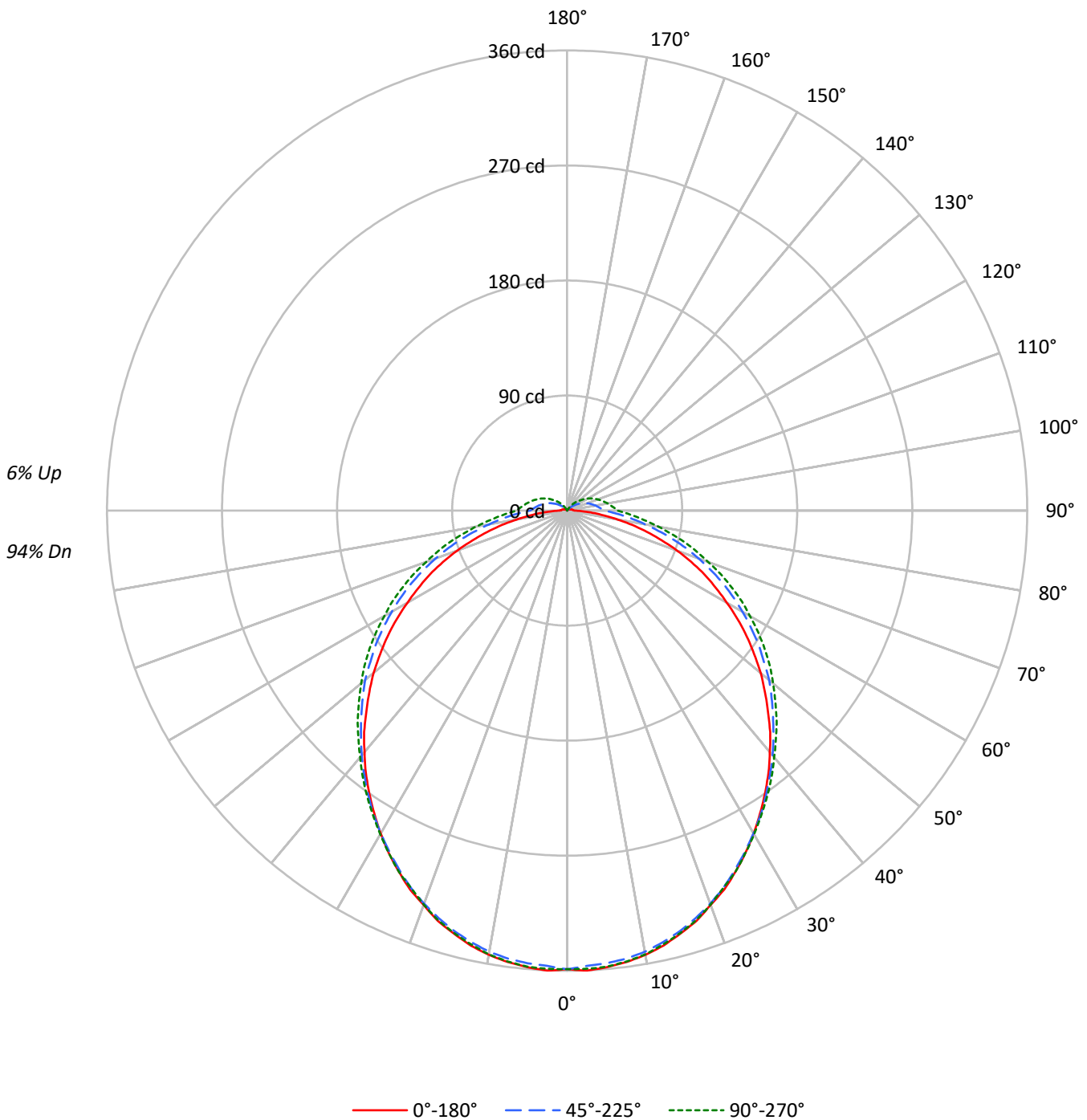
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1114.1 lumens  
Efficiency: N/A  
Efficacy: 99.5 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: 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	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°	2550	2550	2550
5°	2553	2500	2509
10°	2537	2458	2452
15°	2506	2399	2382
20°	2464	2335	2302
25°	2420	2259	2223
30°	2365	2183	2137
35°	2307	2109	2060
40°	2248	2037	1983
45°	2186	1964	1920
50°	2131	1904	1854
55°	2062	1830	1792
60°	1978	1750	1715
65°	1908	1666	1638
70°	1795	1561	1538
75°	1645	1440	1450
80°	1463	1307	1340
85°	1303	1222	1274

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2186 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.0	3.0
10°-20°	96.5	8.7
20°-30°	143.6	12.9
30°-40°	170.1	15.3
40°-50°	176.0	15.8
50°-60°	162.4	14.6
60°-70°	131.2	11.8
70°-80°	87.7	7.9
80°-90°	45.2	4.1
90°-100°	25.4	2.3
100°-110°	18.8	1.7
110°-120°	12.5	1.1
120°-130°	7.0	0.6
130°-140°	3.2	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°	274.0	24.6
0°-40°	444.1	39.9
0°-60°	782.5	70.2
0°-90°	1046.6	93.9
90°-120°	56.7	5.1
90°-150°	67.5	6.1
90°-180°	68.0	6.1
0°-180°	1114.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	359	359	359	359	359	
5°	358	358	356	358	358	34
15°	343	344	341	343	342	97
25°	312	313	310	312	312	144
35°	270	272	271	273	273	169
45°	222	226	228	232	232	172
55°	172	177	183	187	189	153
65°	119	126	134	140	142	117
75°	65	74	85	92	95	69
85°	20	31	43	51	54	20
90°	6	17	29	37	40	4
95°	5	14	26	33	36	4
105°	3	9	20	26	29	4
115°	2	5	14	20	22	2
125°	1	1	8	13	15	1
135°	1	1	3	8	9	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°	358.8	358.8	358.8	358.8	358.8
2.5°	360.2	359.2	356.5	359.2	358.8
5°	358.5	358.2	355.5	358.2	358.2
7.5°	356.2	355.8	353.5	356.2	355.8
10°	352.9	352.9	350.5	352.5	352.5
12.5°	348.5	348.5	345.9	348.2	347.6
15°	342.6	343.6	340.6	342.6	342.2
17.5°	336.6	336.6	334.3	335.9	335.9
20°	328.3	329.6	327.3	329.0	328.0
22.5°	321.0	321.7	319.4	321.0	319.4
25°	311.7	313.1	310.4	312.1	311.7
27.5°	302.1	303.1	301.1	303.1	302.1
30°	291.8	292.8	291.5	292.8	292.5
32.5°	280.9	282.9	281.9	282.9	282.6
35°	269.9	271.9	271.3	272.6	272.9
37.5°	258.7	260.7	260.7	262.3	262.7
40°	246.7	249.4	250.1	252.4	252.0
42.5°	235.1	237.8	238.8	241.8	241.8
45°	222.2	225.8	227.8	231.5	231.8
47.5°	209.9	213.9	216.9	220.2	220.9
50°	197.7	201.3	206.3	209.6	210.3
52.5°	184.4	189.0	194.0	198.6	200.0
55°	171.5	176.8	182.7	187.0	188.7
57.5°	158.2	163.8	170.5	175.8	177.1
60°	144.3	150.9	158.5	163.8	165.2
62.5°	131.3	138.6	146.6	152.2	154.2
65°	118.7	125.7	134.3	140.3	141.9
67.5°	105.1	112.8	121.7	128.3	130.0
70°	91.5	99.8	109.4	115.7	117.4
72.5°	77.6	86.9	97.2	104.1	106.1
75°	64.7	74.3	84.9	92.2	94.8
77.5°	52.4	62.3	73.0	80.6	82.9
80°	40.1	50.4	62.0	70.0	72.3
82.5°	29.2	40.1	52.1	60.0	62.3
85°	19.9	31.2	43.4	51.1	53.7
87.5°	12.3	23.2	35.8	43.4	46.1
90°	5.6	16.6	28.9	36.8	39.5
92.5°	5.0	15.3	27.2	35.2	37.5
95°	4.6	13.9	25.5	33.2	35.5
97.5°	4.3	12.6	23.9	31.5	33.8
100°	4.0	11.3	22.6	29.8	32.2
102.5°	3.6	10.3	20.9	28.2	30.2
105°	3.3	9.0	19.6	26.5	28.9
107.5°	3.0	7.6	18.2	24.9	27.2
110°	2.7	6.6	16.6	23.2	25.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.3	5.6	15.3	21.6	23.9
115°	2.3	4.6	13.6	19.9	22.2
117.5°	2.0	3.6	11.9	18.2	20.6
120°	1.7	2.7	10.6	16.6	18.9
122.5°	1.7	2.0	9.3	14.9	17.2
125°	1.3	1.3	8.0	12.9	15.3
127.5°	1.3	1.0	6.6	11.6	13.3
130°	1.0	0.7	5.6	10.3	11.9
132.5°	1.0	0.7	4.3	9.0	10.6
135°	0.7	0.7	3.0	7.6	9.0
137.5°	0.7	0.3	2.0	6.0	7.6
140°	0.3	0.3	0.7	4.6	6.0
142.5°	0.3	0.3	0.3	3.3	4.6
145°	0.3	0.0	0.0	2.0	3.0
147.5°	0.3	0.0	0.0	0.7	1.7
150°	0.0	0.0	0.0	0.0	0.3
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



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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	13.17	14.70	13.62	15.14	15.60	14.26	15.79	14.71	16.23	16.69
	3H	14.82	16.21	15.29	16.66	17.16	16.42	17.81	16.89	18.26	18.77
	4H	15.39	16.70	15.88	17.17	17.69	17.38	18.70	17.87	19.17	19.69
	6H	15.77	17.00	16.28	17.48	18.01	18.29	19.51	18.79	19.99	20.53
	8H	15.88	17.05	16.39	17.56	18.10	18.71	19.89	19.23	20.39	20.93
	12H	15.94	17.07	16.46	17.56	18.14	19.17	20.29	19.69	20.79	21.36
4H	2H	13.93	15.25	14.42	15.72	16.24	14.78	16.10	15.28	16.57	17.09
	3H	15.81	16.93	16.32	17.44	17.98	17.16	18.28	17.67	18.79	19.34
	4H	16.52	17.54	17.04	18.06	18.63	18.28	19.29	18.80	19.82	20.39
	6H	17.03	17.93	17.57	18.47	19.06	19.34	20.24	19.89	20.79	21.38
	8H	17.18	18.02	17.73	18.57	19.17	19.86	20.70	20.41	21.25	21.85
	12H	17.29	18.05	17.86	18.63	19.23	20.41	21.17	20.98	21.75	22.36
8H	4H	17.00	17.84	17.55	18.39	18.99	18.53	19.37	19.08	19.92	20.52
	6H	17.67	18.38	18.25	18.97	19.58	19.76	20.47	20.34	21.06	21.66
	8H	17.91	18.55	18.50	19.15	19.77	20.39	21.03	20.99	21.63	22.25
	12H	18.09	18.66	18.69	19.25	19.94	21.10	21.67	21.69	22.26	22.94
12H	4H	17.10	17.86	17.67	18.44	19.04	18.55	19.31	19.12	19.89	20.50
	6H	17.83	18.47	18.42	19.07	19.69	19.80	20.44	20.40	21.05	21.67
	8H	18.15	18.71	18.74	19.31	19.99	20.51	21.07	21.10	21.67	22.35