

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: P242854

Luminaire Tested: S125DRP-S375D930-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242854  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DRP-S375D930-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

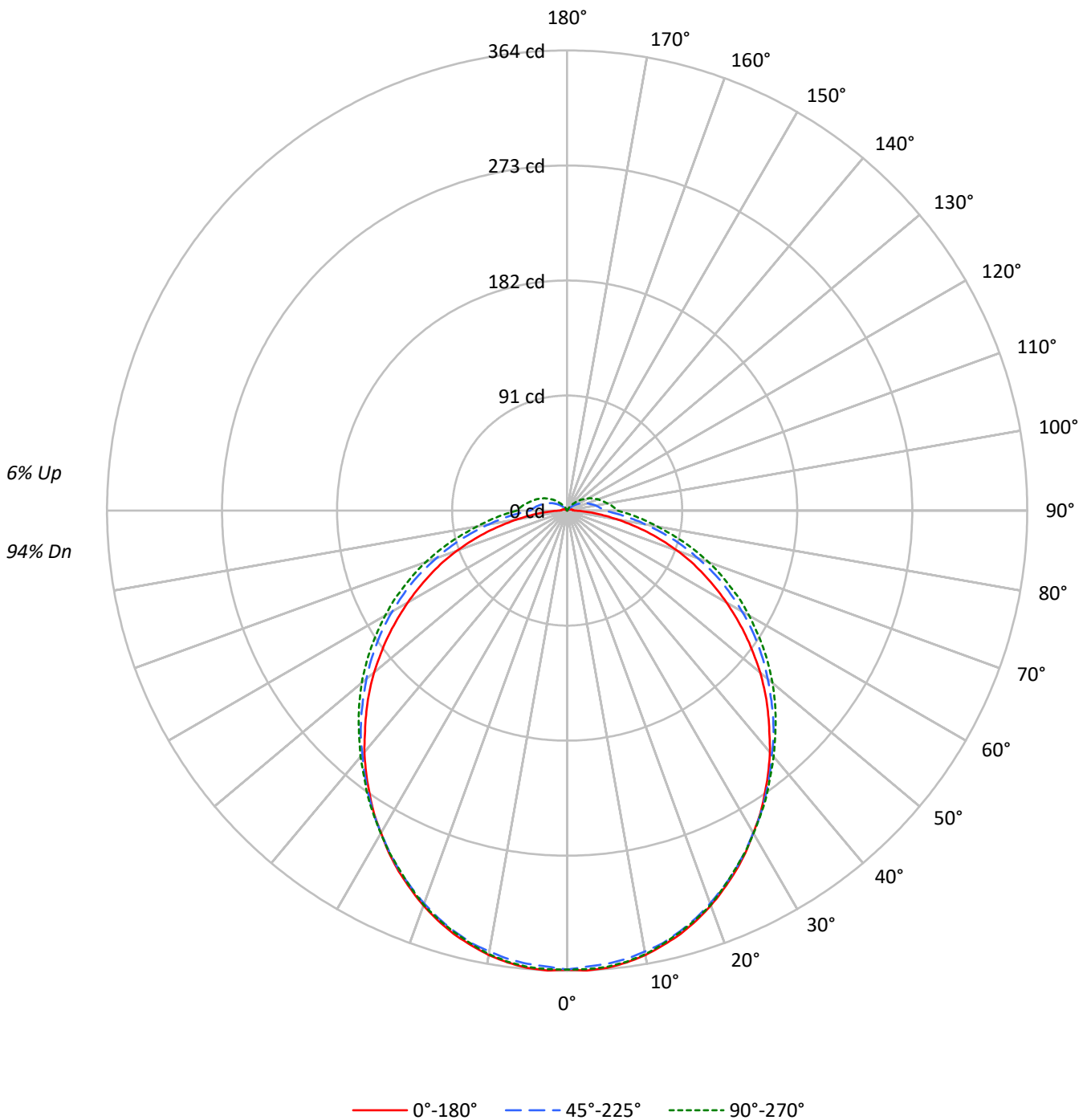
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1124.9 lumens  
Efficiency: N/A  
Efficacy: 97.0 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): 11.6  
Input Voltage (V): 120  
Input Current (Ain): 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°	2581	2581	2581
5°	2586	2531	2538
10°	2567	2484	2478
15°	2536	2428	2403
20°	2495	2359	2329
25°	2446	2286	2237
30°	2386	2205	2154
35°	2331	2131	2078
40°	2274	2052	2001
45°	2210	1985	1932
50°	2149	1913	1871
55°	2075	1843	1799
60°	1995	1764	1725
65°	1911	1682	1643
70°	1817	1570	1558
75°	1665	1460	1453
80°	1467	1328	1340
85°	1283	1233	1293

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2210 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.4	3.1
10°-20°	97.5	8.7
20°-30°	145.0	12.9
30°-40°	171.8	15.3
40°-50°	177.6	15.8
50°-60°	163.6	14.5
60°-70°	132.2	11.8
70°-80°	88.5	7.9
80°-90°	45.7	4.1
90°-100°	25.8	2.3
100°-110°	19.0	1.7
110°-120°	12.7	1.1
120°-130°	7.2	0.6
130°-140°	3.2	0.3
140°-150°	0.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	276.9	24.6
0°-40°	448.7	39.9
0°-60°	789.9	70.2
0°-90°	1056.4	93.9
90°-120°	57.5	5.1
90°-150°	68.5	6.1
90°-180°	68.0	6.0
0°-180°	1124.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	363	363	363	363	363	
5°	363	362	360	363	362	34
15°	347	347	345	347	345	98
25°	315	316	314	315	314	145
35°	273	275	274	275	275	171
45°	225	228	230	233	233	173
55°	173	178	184	188	189	154
65°	119	127	136	141	142	118
75°	66	75	86	93	95	69
85°	20	31	44	52	54	20
90°	6	17	29	37	40	4
95°	5	14	26	34	36	4
105°	3	9	20	27	29	3
115°	2	5	14	20	22	2
125°	1	1	8	14	16	1
135°	1	0	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°	363.1	363.1	363.1	363.1	363.1
2.5°	364.2	363.5	361.0	363.5	363.1
5°	363.1	362.4	359.9	362.7	362.4
7.5°	360.6	360.3	357.8	360.3	359.9
10°	357.0	357.0	354.2	356.7	356.3
12.5°	352.1	352.4	350.3	352.1	351.0
15°	346.7	347.1	344.6	346.7	345.3
17.5°	340.0	340.7	338.2	340.0	338.9
20°	332.5	333.2	330.7	331.8	331.8
22.5°	323.9	325.4	322.5	323.9	322.9
25°	315.0	316.1	314.0	315.4	313.6
27.5°	305.4	306.9	304.4	305.4	304.7
30°	294.4	296.5	294.4	295.1	294.8
32.5°	284.4	286.2	284.8	285.5	285.1
35°	272.7	275.2	274.1	275.2	275.2
37.5°	261.3	263.4	263.1	264.5	264.1
40°	249.5	252.4	252.0	253.5	254.2
42.5°	236.7	240.6	241.7	243.5	243.5
45°	224.6	228.5	230.3	232.8	233.2
47.5°	212.2	215.7	218.6	222.1	222.8
50°	199.3	203.3	207.2	211.1	212.2
52.5°	185.8	190.8	195.8	200.1	200.8
55°	172.6	178.3	184.0	188.0	189.4
57.5°	159.1	165.9	172.3	176.6	177.6
60°	145.6	152.7	159.8	165.2	166.2
62.5°	132.4	139.5	147.4	153.4	154.9
65°	118.9	127.1	135.6	141.0	142.4
67.5°	106.4	114.3	122.8	129.2	131.0
70°	92.6	100.7	110.0	116.8	118.9
72.5°	79.0	87.6	97.9	105.4	106.8
75°	65.5	74.8	86.1	93.3	95.0
77.5°	52.3	63.0	73.7	81.5	82.9
80°	40.2	50.9	63.0	70.8	72.3
82.5°	29.2	40.6	53.0	60.5	63.4
85°	19.6	31.3	43.8	51.6	54.5
87.5°	12.5	23.9	36.0	44.1	46.6
90°	5.7	17.1	29.2	37.4	39.9
92.5°	5.0	15.3	27.8	35.6	38.1
95°	4.6	13.9	26.0	33.8	36.3
97.5°	4.3	12.8	24.6	32.0	34.5
100°	3.9	11.4	22.8	30.3	32.4
102.5°	3.6	10.3	21.4	28.5	30.6
105°	3.2	8.9	19.6	26.7	29.2
107.5°	2.8	7.8	18.2	25.3	27.4
110°	2.5	6.8	16.7	23.5	26.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	5.7	15.3	21.7	24.2
115°	2.1	4.6	13.9	20.3	22.4
117.5°	1.8	3.6	12.5	18.5	21.0
120°	1.8	2.8	11.0	17.1	19.2
122.5°	1.4	1.8	9.6	15.3	17.4
125°	1.4	1.1	8.2	13.9	15.7
127.5°	1.1	0.7	6.8	12.1	14.2
130°	1.1	0.7	5.7	10.7	12.5
132.5°	0.7	0.7	4.3	9.3	10.7
135°	0.7	0.4	2.8	7.5	9.3
137.5°	0.7	0.4	1.8	6.1	7.5
140°	0.4	0.4	0.7	4.6	6.1
142.5°	0.4	0.0	0.0	3.2	4.6
145°	0.4	0.0	0.0	1.8	3.2
147.5°	0.0	0.0	0.0	0.7	1.4
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



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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	13.21	14.74	13.67	15.18	15.65	14.25	15.79	14.71	16.23	16.69
	3H	14.86	16.26	15.33	16.71	17.21	16.43	17.83	16.90	18.28	18.78
	4H	15.43	16.75	15.92	17.22	17.74	17.40	18.71	17.89	19.18	19.70
	6H	15.81	17.04	16.32	17.52	18.05	18.29	19.52	18.80	20.00	20.53
	8H	15.92	17.09	16.43	17.59	18.13	18.73	19.90	19.24	20.40	20.94
	12H	15.98	17.10	16.50	17.60	18.17	19.19	20.31	19.71	20.81	21.38
4H	2H	13.97	15.29	14.47	15.76	16.28	14.79	16.11	15.28	16.57	17.09
	3H	15.85	16.97	16.36	17.48	18.02	17.18	18.30	17.69	18.81	19.35
	4H	16.56	17.57	17.08	18.10	18.67	18.29	19.31	18.82	19.84	20.41
	6H	17.06	17.96	17.61	18.51	19.10	19.36	20.25	19.90	20.80	21.39
	8H	17.21	18.06	17.76	18.61	19.21	19.88	20.72	20.43	21.27	21.87
	12H	17.32	18.08	17.89	18.66	19.26	20.44	21.20	21.01	21.78	22.38
8H	4H	17.04	17.88	17.59	18.43	19.03	18.55	19.39	19.10	19.94	20.55
	6H	17.70	18.41	18.29	19.00	19.61	19.77	20.48	20.36	21.07	21.68
	8H	17.94	18.58	18.54	19.18	19.80	20.41	21.05	21.01	21.66	22.28
	12H	18.12	18.69	18.72	19.28	19.97	21.13	21.69	21.72	22.29	22.97
12H	4H	17.14	17.90	17.71	18.48	19.08	18.57	19.33	19.14	19.91	20.52
	6H	17.86	18.50	18.46	19.11	19.73	19.82	20.46	20.42	21.07	21.69
	8H	18.18	18.75	18.78	19.34	20.03	20.53	21.10	21.13	21.69	22.38