

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: P242855

Luminaire Tested: S125DRP-S610D930-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242855  
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-S610D930-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: -

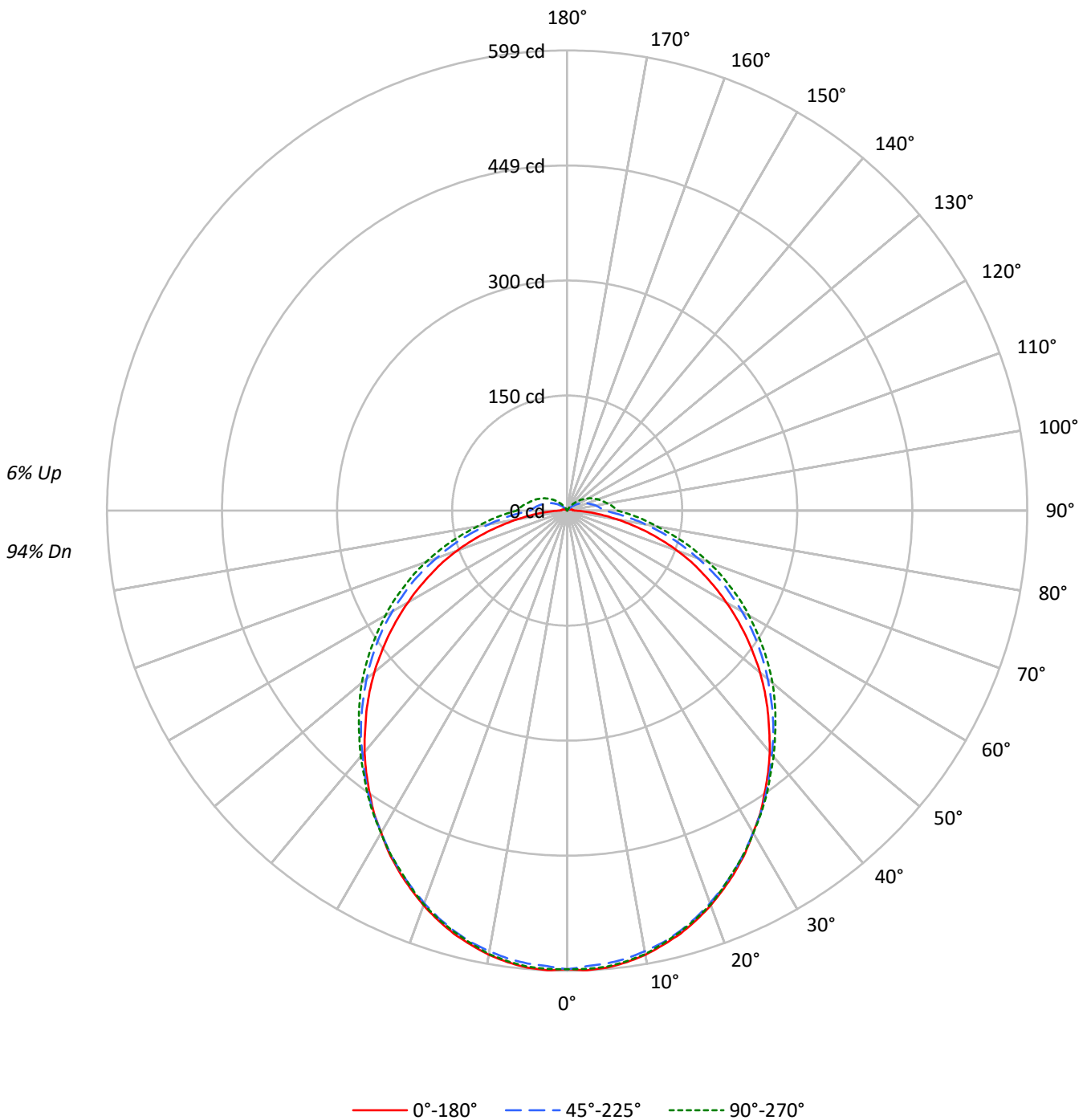
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1849.8 lumens  
Efficiency: N/A  
Efficacy: 98.4 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): 18.8  
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	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°	4244	4244	4244
5°	4252	4162	4174
10°	4222	4084	4076
15°	4172	3992	3952
20°	4104	3879	3829
25°	4023	3758	3678
30°	3924	3626	3542
35°	3833	3504	3416
40°	3740	3376	3290
45°	3635	3265	3176
50°	3534	3145	3076
55°	3413	3032	2958
60°	3281	2902	2838
65°	3143	2766	2703
70°	2986	2582	2562
75°	2738	2403	2390
80°	2415	2184	2201
85°	2108	2027	2126

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3635 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.5	3.1
10°-20°	160.4	8.7
20°-30°	238.5	12.9
30°-40°	282.5	15.3
40°-50°	292.0	15.8
50°-60°	269.0	14.5
60°-70°	217.5	11.8
70°-80°	145.5	7.9
80°-90°	75.2	4.1
90°-100°	42.4	2.3
100°-110°	31.2	1.7
110°-120°	20.9	1.1
120°-130°	11.8	0.6
130°-140°	5.2	0.3
140°-150°	1.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	455.4	24.6
0°-40°	737.9	39.9
0°-60°	1299.0	70.2
0°-90°	1737.2	93.9
90°-120°	94.5	5.1
90°-150°	112.6	6.1
90°-180°	113.0	6.1
0°-180°	1849.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	597	596	592	596	596	57
15°	570	571	567	570	568	161
25°	518	520	516	519	516	239
35°	448	452	451	452	452	281
45°	369	376	379	383	383	285
55°	284	293	303	309	311	254
65°	196	209	223	232	234	194
75°	108	123	142	153	156	114
85°	32	52	72	85	90	34
90°	9	28	48	62	66	7
95°	8	23	43	56	60	6
105°	5	15	32	44	48	6
115°	4	8	23	33	37	3
125°	2	2	14	23	26	2
135°	1	1	5	12	15	1
145°	1	0	0	3	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°	597.1	597.1	597.1	597.1	597.1
2.5°	598.9	597.7	593.6	597.7	597.1
5°	597.1	595.9	591.8	596.5	595.9
7.5°	593.0	592.4	588.3	592.4	591.8
10°	587.2	587.2	582.5	586.6	586.0
12.5°	579.0	579.6	576.0	579.0	577.2
15°	570.2	570.8	566.7	570.2	567.8
17.5°	559.1	560.2	556.1	559.1	557.3
20°	546.8	547.9	543.8	545.6	545.6
22.5°	532.7	535.1	530.4	532.7	531.0
25°	518.1	519.8	516.3	518.7	515.7
27.5°	502.3	504.6	500.5	502.3	501.1
30°	484.1	487.6	484.1	485.3	484.7
32.5°	467.7	470.7	468.3	469.5	468.9
35°	448.4	452.5	450.8	452.5	452.5
37.5°	429.7	433.2	432.6	435.0	434.4
40°	410.4	415.1	414.5	416.8	418.0
42.5°	389.3	395.7	397.5	400.4	400.4
45°	369.4	375.8	378.8	382.9	383.4
47.5°	348.9	354.8	359.4	365.3	366.5
50°	327.8	334.3	340.7	347.1	348.9
52.5°	305.6	313.8	322.0	329.0	330.2
55°	283.9	293.3	302.7	309.1	311.4
57.5°	261.7	272.8	283.3	290.4	292.1
60°	239.4	251.1	262.8	271.6	273.4
62.5°	217.8	229.5	242.4	252.3	254.7
65°	195.5	209.0	223.0	231.8	234.2
67.5°	175.0	187.9	202.0	212.5	215.4
70°	152.2	165.7	180.9	192.0	195.5
72.5°	130.0	144.0	161.0	173.3	175.6
75°	107.7	122.9	141.7	153.4	156.3
77.5°	86.1	103.6	121.2	134.1	136.4
80°	66.2	83.7	103.6	116.5	118.8
82.5°	48.0	66.7	87.2	99.5	104.2
85°	32.2	51.5	72.0	84.9	89.6
87.5°	20.5	39.2	59.1	72.6	76.7
90°	9.4	28.1	48.0	61.5	65.6
92.5°	8.2	25.2	45.7	58.5	62.6
95°	7.6	22.8	42.7	55.6	59.7
97.5°	7.0	21.1	40.4	52.7	56.8
100°	6.4	18.7	37.5	49.8	53.3
102.5°	5.9	17.0	35.1	46.8	50.3
105°	5.3	14.6	32.2	43.9	48.0
107.5°	4.7	12.9	29.9	41.6	45.1
110°	4.1	11.1	27.5	38.6	42.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	9.4	25.2	35.7	39.8
115°	3.5	7.6	22.8	33.4	36.9
117.5°	2.9	5.9	20.5	30.4	34.5
120°	2.9	4.7	18.1	28.1	31.6
122.5°	2.3	2.9	15.8	25.2	28.7
125°	2.3	1.8	13.5	22.8	25.8
127.5°	1.8	1.2	11.1	19.9	23.4
130°	1.8	1.2	9.4	17.6	20.5
132.5°	1.2	1.2	7.0	15.2	17.6
135°	1.2	0.6	4.7	12.3	15.2
137.5°	1.2	0.6	2.9	10.0	12.3
140°	0.6	0.6	1.2	7.6	10.0
142.5°	0.6	0.0	0.0	5.3	7.6
145°	0.6	0.0	0.0	2.9	5.3
147.5°	0.0	0.0	0.0	1.2	2.3
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



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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	14.94	16.47	15.40	16.91	17.38	15.98	17.51	16.44	17.95	18.42
	3H	16.59	17.98	17.06	18.43	18.94	18.16	19.55	18.63	20.00	20.51
	4H	17.16	18.48	17.65	18.95	19.47	19.12	20.44	19.61	20.91	21.43
	6H	17.54	18.77	18.04	19.25	19.78	20.02	21.25	20.52	21.73	22.26
	8H	17.64	18.82	18.16	19.32	19.86	20.45	21.63	20.97	22.13	22.67
	12H	17.70	18.83	18.23	19.33	19.90	20.91	22.04	21.44	22.54	23.11
4H	2H	15.70	17.02	16.19	17.49	18.01	16.52	17.83	17.01	18.30	18.82
	3H	17.58	18.70	18.09	19.21	19.75	18.91	20.03	19.41	20.54	21.08
	4H	18.28	19.30	18.81	19.83	20.40	20.02	21.04	20.55	21.56	22.14
	6H	18.79	19.69	19.34	20.24	20.83	21.09	21.98	21.63	22.53	23.12
	8H	18.94	19.78	19.49	20.33	20.94	21.61	22.45	22.16	23.00	23.60
	12H	19.04	19.81	19.61	20.38	20.99	22.16	22.93	22.74	23.50	24.11
8H	4H	18.77	19.61	19.32	20.16	20.76	20.28	21.12	20.83	21.67	22.27
	6H	19.43	20.14	20.01	20.73	21.34	21.50	22.21	22.09	22.80	23.41
	8H	19.67	20.31	20.27	20.91	21.53	22.14	22.78	22.74	23.38	24.00
	12H	19.85	20.42	20.45	21.01	21.70	22.85	23.42	23.45	24.01	24.70
12H	4H	18.87	19.63	19.44	20.21	20.81	20.30	21.06	20.87	21.64	22.25
	6H	19.59	20.23	20.19	20.84	21.46	21.55	22.19	22.15	22.80	23.42
	8H	19.91	20.48	20.51	21.07	21.76	22.26	22.83	22.86	23.42	24.11