

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: P243632

Luminaire Tested: S125DRP-H610D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243632  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DRP-H610D830-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

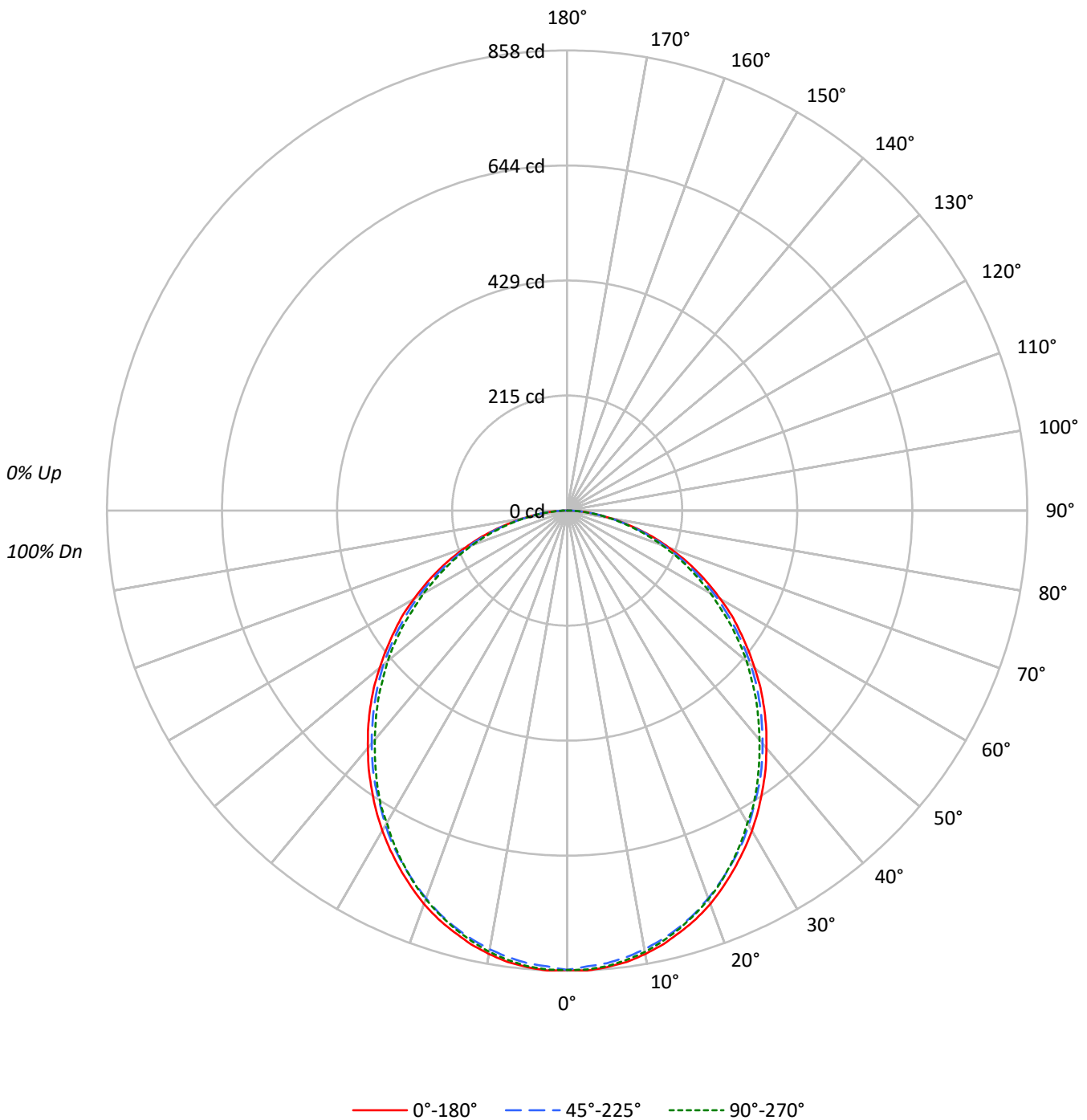
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2210.8 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
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	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																												
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																												
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																												
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51																												
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44																												
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39																												
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35																												
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31																												
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28																												
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25																												

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

	0°	45°	90°
0°	6087	6087	6087
5°	6097	6044	6084
10°	6059	5995	6031
15°	5987	5923	5942
20°	5903	5817	5831
25°	5780	5696	5686
30°	5657	5559	5518
35°	5512	5414	5365
40°	5364	5259	5177
45°	5217	5103	5009
50°	5044	4940	4829
55°	4875	4742	4617
60°	4689	4556	4395
65°	4470	4312	4164
70°	4191	4036	3905
75°	3866	3746	3573
80°	3369	3344	3266
85°	2919	2919	2764

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5217 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.8	3.7
10°-20°	228.0	10.3
20°-30°	336.1	15.2
30°-40°	391.4	17.7
40°-50°	392.2	17.7
50°-60°	342.9	15.5
60°-70°	254.5	11.5
70°-80°	144.3	6.5
80°-90°	40.5	1.8
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°	644.9	29.2
0°-40°	1036.4	46.9
0°-60°	1771.5	80.1
0°-90°	2210.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2210.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	855	853	847	853	853	81
15°	814	812	805	809	808	230
25°	737	735	726	728	725	340
35°	635	632	624	620	618	397
45°	519	518	508	500	498	400
55°	393	393	383	374	373	352
65°	266	264	256	251	248	264
75°	141	138	136	134	130	149
85°	36	36	36	35	34	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	856.5	856.5	856.5	856.5	856.5
2.5°	858.4	857.1	850.8	857.1	856.5
5°	854.6	853.3	847.1	853.3	852.7
7.5°	848.9	847.1	840.1	846.4	845.2
10°	839.5	838.3	830.7	835.7	835.7
12.5°	828.2	826.3	818.8	823.2	822.5
15°	813.7	812.5	805.0	809.3	807.5
17.5°	798.7	795.5	788.6	792.4	789.9
20°	780.4	777.9	769.1	772.3	771.0
22.5°	759.7	756.6	748.4	750.3	749.7
25°	737.1	734.6	726.4	728.3	725.1
27.5°	713.8	710.7	703.2	703.2	700.0
30°	689.3	686.2	677.4	677.4	672.4
32.5°	662.9	660.4	649.7	649.1	647.9
35°	635.3	631.5	624.0	620.2	618.3
37.5°	607.6	604.5	596.3	591.3	588.2
40°	578.1	576.2	566.8	562.4	558.0
42.5°	549.2	547.3	537.3	529.7	527.8
45°	519.0	517.8	507.7	500.2	498.3
47.5°	488.9	487.6	477.6	469.4	466.3
50°	456.2	456.2	446.8	438.6	436.7
52.5°	424.8	424.2	414.7	406.6	404.7
55°	393.4	392.7	382.7	374.5	372.6
57.5°	363.8	360.1	351.3	345.0	338.7
60°	329.9	328.0	320.5	312.3	309.2
62.5°	298.5	296.0	288.4	281.5	277.1
65°	265.8	263.9	256.4	250.7	247.6
67.5°	235.0	232.5	225.0	220.6	218.0
70°	201.7	199.8	194.2	188.5	187.9
72.5°	172.2	169.7	166.5	161.5	159.0
75°	140.8	138.2	136.4	133.8	130.1
77.5°	110.6	109.3	108.1	106.2	104.3
80°	82.3	82.3	81.7	80.4	79.8
82.5°	58.4	59.1	57.2	55.9	55.9
85°	35.8	35.8	35.8	34.6	33.9
87.5°	17.6	15.7	15.7	14.5	14.5
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	17.58	19.20	17.95	19.51	19.83	17.25	18.86	17.61	19.18	19.49
	3H	19.34	20.80	19.72	21.13	21.49	18.96	20.42	19.34	20.75	21.11
	4H	19.99	21.36	20.39	21.71	22.09	19.60	20.97	20.00	21.32	21.69
	6H	20.45	21.73	20.86	22.09	22.48	20.07	21.35	20.48	21.71	22.10
	8H	20.60	21.82	21.03	22.21	22.60	20.23	21.44	20.65	21.83	22.23
	12H	20.70	21.87	21.13	22.25	22.68	20.33	21.49	20.76	21.87	22.30
4H	2H	18.16	19.53	18.55	19.88	20.25	17.89	19.26	18.29	19.61	19.99
	3H	20.14	21.29	20.55	21.69	22.09	19.82	20.97	20.23	21.37	21.77
	4H	20.91	21.95	21.34	22.37	22.80	20.59	21.63	21.02	22.04	22.48
	6H	21.50	22.41	21.96	22.85	23.31	21.19	22.10	21.64	22.54	22.99
	8H	21.70	22.55	22.16	22.99	23.46	21.39	22.24	21.85	22.68	23.15
	12H	21.85	22.61	22.33	23.09	23.56	21.53	22.30	22.01	22.77	23.24
8H	4H	21.20	22.05	21.66	22.49	22.95	20.91	21.76	21.37	22.20	22.67
	6H	21.90	22.61	22.40	23.10	23.57	21.63	22.34	22.12	22.82	23.30
	8H	22.18	22.81	22.69	23.32	23.80	21.90	22.53	22.41	23.04	23.53
	12H	22.40	22.96	22.90	23.45	24.01	22.12	22.68	22.62	23.17	23.73
12H	4H	21.22	21.99	21.70	22.46	22.93	20.94	21.71	21.42	22.18	22.65
	6H	21.95	22.59	22.46	23.10	23.58	21.69	22.32	22.20	22.83	23.32
	8H	22.28	22.84	22.79	23.34	23.90	22.02	22.58	22.52	23.07	23.63