

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: P242884

Luminaire Tested: S125RDRP-S610D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242884
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-S610D840-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

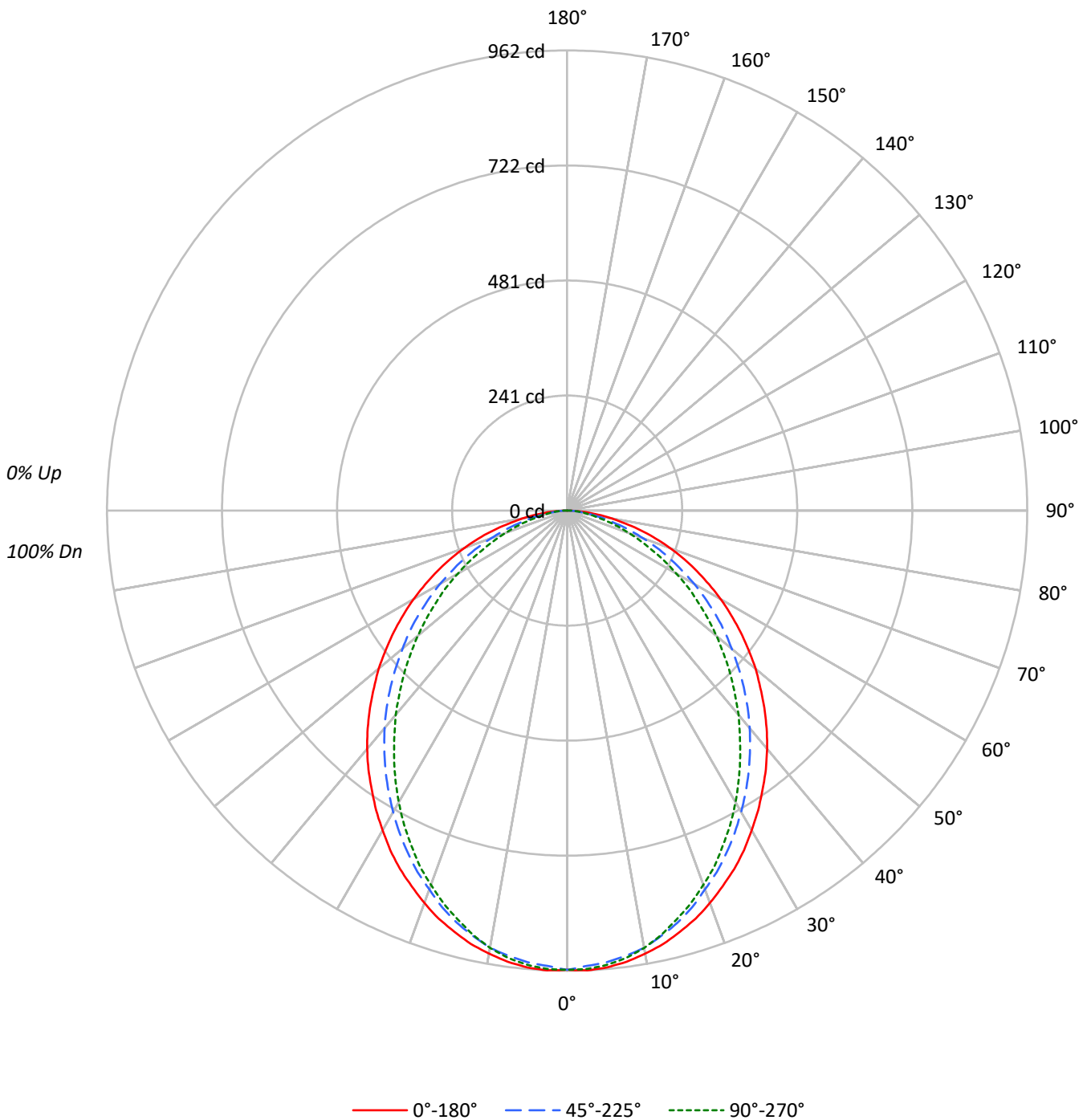
Lumens per Lamp: N/A
Luminaire Lumens: 2268.3 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P242884

CATALOG NUMBER: S125RDRP-S610D840-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P242884

CATALOG NUMBER: S125RDRP-S610D840-X4F0-XX-UDD-F-W

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				
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					61				
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38					36				
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34					33				
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31					29				
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6823	6823	6823
5°	6839	6761	6803
10°	6788	6698	6698
15°	6707	6563	6509
20°	6603	6373	6296
25°	6482	6187	6050
30°	6332	5969	5778
35°	6179	5744	5473
40°	6034	5510	5173
45°	5860	5248	4847
50°	5684	4962	4506
55°	5481	4690	4142
60°	5278	4360	3751
65°	5037	3976	3305
70°	4761	3495	2847
75°	4380	2947	2370
80°	3860	2317	1989
85°	3254	1892	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5860 cd/sqm

TEST NUMBER: P242884

CATALOG NUMBER: S125RDRP-S610D840-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	4.0
10°-20°	252.5	11.1
20°-30°	366.1	16.1
30°-40°	417.1	18.4
40°-50°	406.6	17.9
50°-60°	342.2	15.1
60°-70°	239.8	10.6
70°-80°	122.9	5.4
80°-90°	30.7	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°	709.0	31.3
0°-40°	1126.1	49.6
0°-60°	1874.9	82.7
0°-90°	2268.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2268.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	956	948	955	954	91
15°	912	907	892	891	885	257
25°	827	816	789	780	772	380
35°	712	695	662	641	631	446
45°	583	562	522	493	482	450
55°	442	419	378	346	334	396
65°	300	275	236	207	196	297
75°	160	138	107	91	86	169
85°	40	27	23	22	22	46
90°	0	0	0	0	0	

TEST NUMBER: P242884

CATALOG NUMBER: S125RDRP-S610D840-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.0	960.0	960.0	960.0	960.0
2.5°	962.2	960.0	952.8	960.0	959.3
5°	958.6	955.7	947.7	955.0	953.5
7.5°	951.3	948.4	939.0	944.8	943.4
10°	940.5	938.3	928.1	930.3	928.1
12.5°	928.1	925.2	910.7	912.2	908.6
15°	911.5	907.1	891.9	891.2	884.6
17.5°	894.1	887.5	869.4	865.8	860.7
20°	873.0	865.8	842.6	839.0	832.4
22.5°	849.8	842.6	817.9	809.9	804.9
25°	826.6	815.7	788.9	779.5	771.5
27.5°	800.5	787.5	759.2	746.9	738.9
30°	771.5	757.7	727.3	710.6	704.1
32.5°	743.2	726.6	695.4	676.5	667.8
35°	712.1	694.7	662.0	641.0	630.8
37.5°	682.3	661.3	627.9	603.3	593.1
40°	650.4	628.7	593.9	566.3	557.6
42.5°	617.1	594.6	558.3	532.2	518.5
45°	583.0	562.0	522.1	493.1	482.2
47.5°	547.5	525.7	485.8	456.1	443.8
50°	514.1	490.2	448.8	418.4	407.5
52.5°	477.8	453.2	414.8	381.4	370.5
55°	442.3	419.1	378.5	345.9	334.3
57.5°	406.1	381.4	342.3	310.3	300.2
60°	371.3	345.9	306.7	274.8	263.9
62.5°	334.3	310.3	270.5	241.5	230.6
65°	299.5	274.8	236.4	207.4	196.5
67.5°	264.7	240.0	203.0	175.5	166.8
70°	229.1	204.5	168.2	145.7	137.0
72.5°	194.3	170.4	137.0	116.7	111.7
75°	159.5	137.8	107.3	91.4	86.3
77.5°	124.0	106.6	81.2	68.9	64.5
80°	94.3	76.9	56.6	50.0	48.6
82.5°	65.3	50.0	37.7	35.5	34.8
85°	39.9	26.8	23.2	22.5	21.8
87.5°	16.7	11.6	10.9	10.9	10.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242884
 CATALOG NUMBER: S125RDRP-S610D840-X4F0-XX-UDD-F-W

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	18.01	19.59	18.38	19.90	20.22	16.44	18.02	16.81	18.33	18.65
	3H	19.80	21.21	20.17	21.54	21.90	17.76	19.18	18.13	19.50	19.86
	4H	20.46	21.79	20.86	22.14	22.52	18.17	19.50	18.57	19.85	20.23
	6H	20.93	22.16	21.34	22.53	22.92	18.42	19.66	18.83	20.02	20.41
	8H	21.08	22.25	21.50	22.64	23.04	18.50	19.68	18.93	20.07	20.47
	12H	21.17	22.30	21.60	22.68	23.11	18.56	19.69	18.99	20.07	20.50
4H	2H	18.40	19.74	18.80	20.08	20.46	17.13	18.46	17.53	18.81	19.19
	3H	20.39	21.50	20.80	21.89	22.30	18.63	19.74	19.04	20.14	20.54
	4H	21.17	22.17	21.60	22.59	23.02	19.13	20.13	19.56	20.54	20.98
	6H	21.76	22.64	22.22	23.08	23.54	19.47	20.34	19.93	20.78	21.24
	8H	21.96	22.77	22.42	23.22	23.68	19.58	20.40	20.04	20.84	21.31
	12H	22.10	22.83	22.58	23.30	23.77	19.67	20.40	20.15	20.87	21.34
8H	4H	21.29	22.11	21.76	22.55	23.02	19.44	20.26	19.90	20.70	21.17
	6H	21.97	22.65	22.47	23.14	23.61	19.86	20.54	20.36	21.03	21.51
	8H	22.22	22.82	22.73	23.33	23.82	20.02	20.63	20.54	21.14	21.62
	12H	22.41	22.95	22.92	23.44	24.00	20.16	20.70	20.67	21.19	21.75
12H	4H	21.29	22.02	21.77	22.50	22.97	19.48	20.21	19.96	20.69	21.16
	6H	21.96	22.57	22.48	23.08	23.57	19.92	20.52	20.43	21.03	21.52
	8H	22.25	22.79	22.76	23.28	23.84	20.12	20.66	20.63	21.15	21.71