

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: P242880

Luminaire Tested: S125RDRP-S610D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242880  
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-S610D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

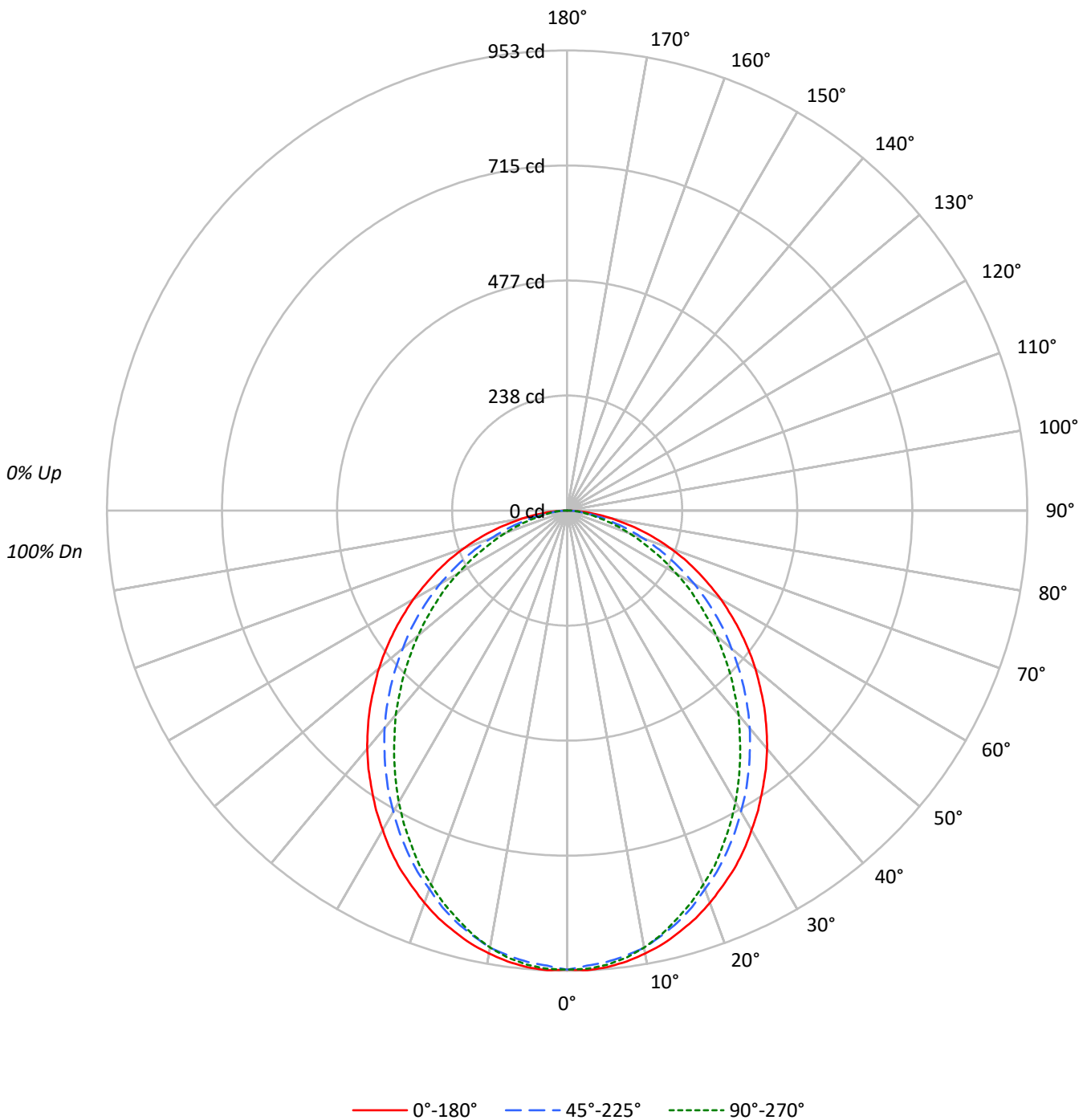
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2246.1 lumens  
Efficiency: N/A  
Efficacy: 119.5 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 (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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	6757	6757	6757
5°	6772	6696	6736
10°	6721	6633	6633
15°	6641	6499	6446
20°	6539	6310	6235
25°	6419	6126	5991
30°	6270	5911	5722
35°	6118	5688	5420
40°	5976	5456	5123
45°	5803	5197	4799
50°	5629	4915	4462
55°	5427	4644	4102
60°	5225	4317	3716
65°	4986	3937	3273
70°	4715	3462	2820
75°	4339	2919	2345
80°	3819	2292	1969
85°	3221	1876	1753

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5803 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.5	4.0
10°-20°	250.0	11.1
20°-30°	362.6	16.1
30°-40°	413.1	18.4
40°-50°	402.6	17.9
50°-60°	338.8	15.1
60°-70°	237.4	10.6
70°-80°	121.7	5.4
80°-90°	30.4	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°	702.1	31.3
0°-40°	1115.1	49.6
0°-60°	1856.6	82.7
0°-90°	2246.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2246.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	951	951	951	951	951	
5°	949	946	938	946	944	90
15°	903	898	883	882	876	254
25°	818	808	781	772	764	377
35°	705	688	656	635	625	442
45°	577	556	517	488	478	445
55°	438	415	375	342	331	392
65°	296	272	234	205	195	294
75°	158	136	106	90	85	167
85°	40	27	23	22	22	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	950.7	950.7	950.7	950.7	950.7
2.5°	952.8	950.7	943.5	950.7	949.9
5°	949.2	946.4	938.5	945.6	944.2
7.5°	942.1	939.2	929.8	935.6	934.2
10°	931.3	929.1	919.1	921.2	919.1
12.5°	919.1	916.2	901.8	903.3	899.7
15°	902.6	898.3	883.2	882.5	876.0
17.5°	885.3	878.9	860.9	857.3	852.3
20°	864.5	857.3	834.3	830.8	824.3
22.5°	841.5	834.3	809.9	802.0	797.0
25°	818.5	807.8	781.2	771.9	764.0
27.5°	792.7	779.8	751.8	739.6	731.7
30°	764.0	750.3	720.2	703.7	697.2
32.5°	736.0	719.5	688.6	669.9	661.3
35°	705.1	687.9	655.6	634.7	624.7
37.5°	675.7	654.8	621.8	597.4	587.3
40°	644.1	622.5	588.1	560.8	552.2
42.5°	611.0	588.8	552.9	527.0	513.4
45°	577.3	556.5	517.0	488.3	477.5
47.5°	542.1	520.6	481.1	451.6	439.4
50°	509.1	485.4	444.5	414.3	403.5
52.5°	473.2	448.8	410.7	377.7	366.9
55°	438.0	415.0	374.8	342.5	331.0
57.5°	402.1	377.7	338.9	307.3	297.3
60°	367.6	342.5	303.7	272.1	261.4
62.5°	331.0	307.3	267.8	239.1	228.3
65°	296.5	272.1	234.1	205.4	194.6
67.5°	262.1	237.7	201.0	173.8	165.1
70°	226.9	202.5	166.6	144.3	135.7
72.5°	192.4	168.7	135.7	115.6	110.6
75°	158.0	136.4	106.3	90.5	85.4
77.5°	122.8	105.5	80.4	68.2	63.9
80°	93.3	76.1	56.0	49.5	48.1
82.5°	64.6	49.5	37.3	35.2	34.5
85°	39.5	26.6	23.0	22.3	21.5
87.5°	16.5	11.5	10.8	10.8	10.1
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	17.98	19.55	18.34	19.87	20.18	16.41	17.99	16.77	18.30	18.61
	3H	19.76	21.18	20.14	21.51	21.87	17.72	19.14	18.10	19.47	19.83
	4H	20.42	21.76	20.82	22.11	22.48	18.13	19.47	18.53	19.81	20.19
	6H	20.89	22.13	21.30	22.49	22.88	18.39	19.62	18.80	19.99	20.38
	8H	21.04	22.22	21.47	22.61	23.01	18.47	19.65	18.90	20.04	20.44
	12H	21.14	22.27	21.57	22.65	23.08	18.53	19.65	18.95	20.03	20.46
4H	2H	18.37	19.70	18.77	20.05	20.43	17.10	18.43	17.50	18.78	19.16
	3H	20.35	21.46	20.76	21.86	22.26	18.60	19.71	19.01	20.11	20.51
	4H	21.14	22.14	21.57	22.55	22.99	19.09	20.09	19.52	20.51	20.95
	6H	21.73	22.60	22.18	23.04	23.50	19.44	20.31	19.89	20.75	21.21
	8H	21.92	22.74	22.38	23.18	23.65	19.55	20.36	20.01	20.81	21.27
	12H	22.06	22.79	22.54	23.27	23.74	19.63	20.36	20.11	20.84	21.31
8H	4H	21.26	22.08	21.72	22.52	22.99	19.41	20.22	19.87	20.67	21.13
	6H	21.94	22.61	22.43	23.10	23.58	19.83	20.51	20.33	21.00	21.47
	8H	22.18	22.79	22.69	23.30	23.78	19.99	20.60	20.50	21.10	21.59
	12H	22.38	22.91	22.89	23.41	23.97	20.13	20.67	20.64	21.16	21.72
12H	4H	21.25	21.98	21.73	22.46	22.93	19.44	20.18	19.93	20.65	21.12
	6H	21.93	22.54	22.44	23.04	23.53	19.88	20.49	20.39	21.00	21.48
	8H	22.22	22.75	22.73	23.24	23.81	20.09	20.62	20.60	21.12	21.68