

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: P243740

Luminaire Tested: S125RDRP-H610D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243740  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H610D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

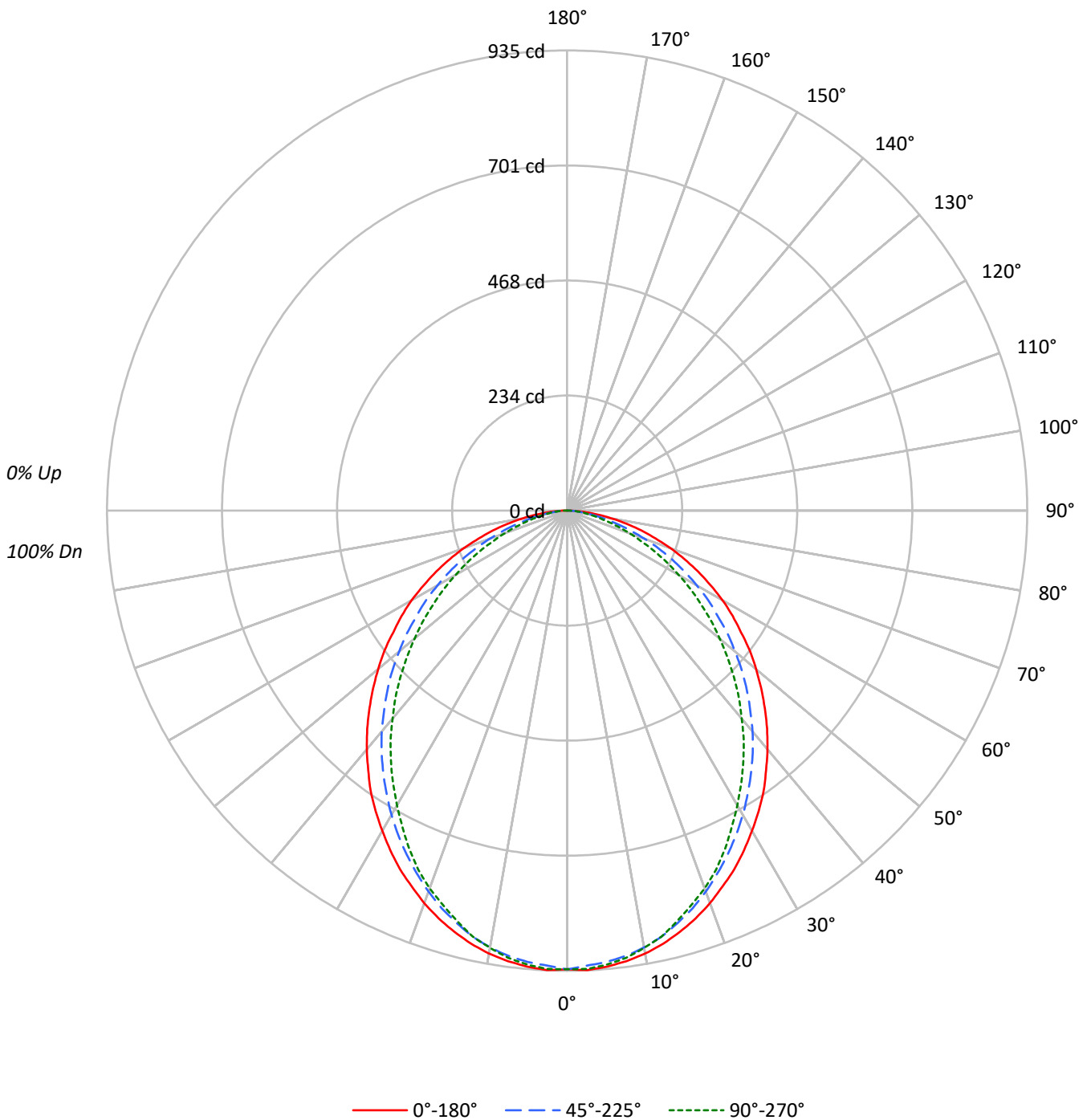
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2227.7 lumens  
Efficiency: N/A  
Efficacy: 129.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26  
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 (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	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	97	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	63	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	43	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38					36				
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34					32				
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31					29				
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28					27				

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

	0°	45°	90°
0°	6624	6624	6624
5°	6635	6569	6607
10°	6596	6505	6510
15°	6519	6382	6353
20°	6419	6232	6177
25°	6305	6049	5950
30°	6166	5860	5673
35°	6039	5651	5414
40°	5876	5437	5121
45°	5709	5194	4818
50°	5543	4924	4475
55°	5344	4626	4114
60°	5184	4321	3724
65°	4933	3957	3296
70°	4655	3464	2812
75°	4284	2892	2287
80°	3766	2239	1883
85°	3205	1851	1737

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5709 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.8	3.9
10°-20°	245.9	11.0
20°-30°	357.8	16.1
30°-40°	409.8	18.4
40°-50°	401.0	18.0
50°-60°	338.5	15.2
60°-70°	237.0	10.6
70°-80°	120.4	5.4
80°-90°	29.6	1.3
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°	691.5	31.0
0°-40°	1101.2	49.4
0°-60°	1840.7	82.6
0°-90°	2227.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2227.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	930	928	921	927	926	88
15°	886	883	867	867	863	250
25°	804	795	771	763	759	370
35°	696	679	651	632	624	435
45°	568	549	517	489	479	438
55°	431	413	373	343	332	387
65°	293	271	235	206	196	291
75°	156	137	105	88	83	165
85°	39	25	23	21	21	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	932.0	932.0	932.0	932.0	932.0
2.5°	934.7	932.7	925.4	932.0	932.0
5°	930.0	928.0	920.7	926.7	926.0
7.5°	923.4	921.4	912.7	918.7	916.7
10°	914.0	911.4	901.4	904.7	902.0
12.5°	901.4	898.7	886.7	888.0	886.7
15°	886.0	882.7	867.4	866.7	863.4
17.5°	868.7	864.0	847.4	845.4	840.0
20°	848.7	842.7	824.0	820.0	816.7
22.5°	826.0	820.0	798.0	792.0	790.0
25°	804.0	794.7	771.3	763.3	758.7
27.5°	778.0	767.3	743.3	732.7	724.7
30°	751.3	739.3	714.0	700.0	691.3
32.5°	724.0	710.0	682.7	665.3	658.0
35°	696.0	679.3	651.3	632.0	624.0
37.5°	664.0	647.3	619.3	596.7	589.3
40°	633.3	616.0	586.0	561.3	552.0
42.5°	601.3	583.3	550.7	524.7	516.7
45°	568.0	549.3	516.7	489.3	479.3
47.5°	534.7	516.0	482.0	454.7	442.0
50°	501.3	481.3	445.3	417.3	404.7
52.5°	468.0	446.0	410.7	380.7	369.3
55°	431.3	412.7	373.3	343.3	332.0
57.5°	398.7	378.0	340.7	310.0	297.3
60°	364.7	342.0	304.0	274.0	262.0
62.5°	328.7	306.0	269.3	239.3	228.7
65°	293.3	270.7	235.3	206.0	196.0
67.5°	258.0	236.7	201.3	174.0	162.7
70°	224.0	202.0	166.7	142.0	135.3
72.5°	188.0	170.7	135.3	113.3	108.0
75°	156.0	136.7	105.3	88.0	83.3
77.5°	123.3	104.7	78.0	66.0	62.0
80°	92.0	76.0	54.7	47.3	46.0
82.5°	63.3	48.0	36.0	34.7	34.0
85°	39.3	25.3	22.7	21.3	21.3
87.5°	16.7	10.7	10.7	10.0	10.7
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	17.99	19.57	18.36	19.89	20.20	16.48	18.06	16.85	18.38	18.69
	3H	19.76	21.18	20.13	21.50	21.87	17.76	19.18	18.14	19.51	19.87
	4H	20.41	21.75	20.81	22.10	22.47	18.15	19.49	18.55	19.83	20.21
	6H	20.88	22.12	21.30	22.48	22.88	18.39	19.62	18.80	19.99	20.38
	8H	21.03	22.21	21.45	22.60	23.00	18.46	19.64	18.89	20.03	20.43
	12H	21.12	22.25	21.55	22.63	23.06	18.52	19.64	18.95	20.03	20.45
4H	2H	18.39	19.73	18.79	20.08	20.45	17.17	18.50	17.57	18.85	19.23
	3H	20.36	21.47	20.77	21.87	22.27	18.63	19.74	19.04	20.14	20.54
	4H	21.14	22.14	21.57	22.56	22.99	19.10	20.10	19.53	20.52	20.95
	6H	21.73	22.60	22.19	23.05	23.50	19.42	20.29	19.87	20.73	21.19
	8H	21.92	22.73	22.38	23.18	23.64	19.52	20.34	19.98	20.78	21.25
	12H	22.05	22.78	22.53	23.26	23.73	19.61	20.34	20.09	20.82	21.29
8H	4H	21.26	22.07	21.72	22.52	22.98	19.41	20.22	19.87	20.67	21.13
	6H	21.93	22.61	22.43	23.10	23.57	19.80	20.48	20.30	20.97	21.44
	8H	22.17	22.78	22.68	23.28	23.77	19.96	20.56	20.47	21.07	21.56
	12H	22.36	22.90	22.87	23.39	23.95	20.09	20.63	20.60	21.12	21.68
12H	4H	21.25	21.98	21.73	22.46	22.93	19.44	20.18	19.93	20.65	21.12
	6H	21.92	22.53	22.44	23.04	23.53	19.85	20.46	20.36	20.97	21.45
	8H	22.20	22.74	22.71	23.23	23.79	20.05	20.59	20.56	21.08	21.64