

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: P243754

Luminaire Tested: S125RDRP-H610D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243754  
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-H610D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

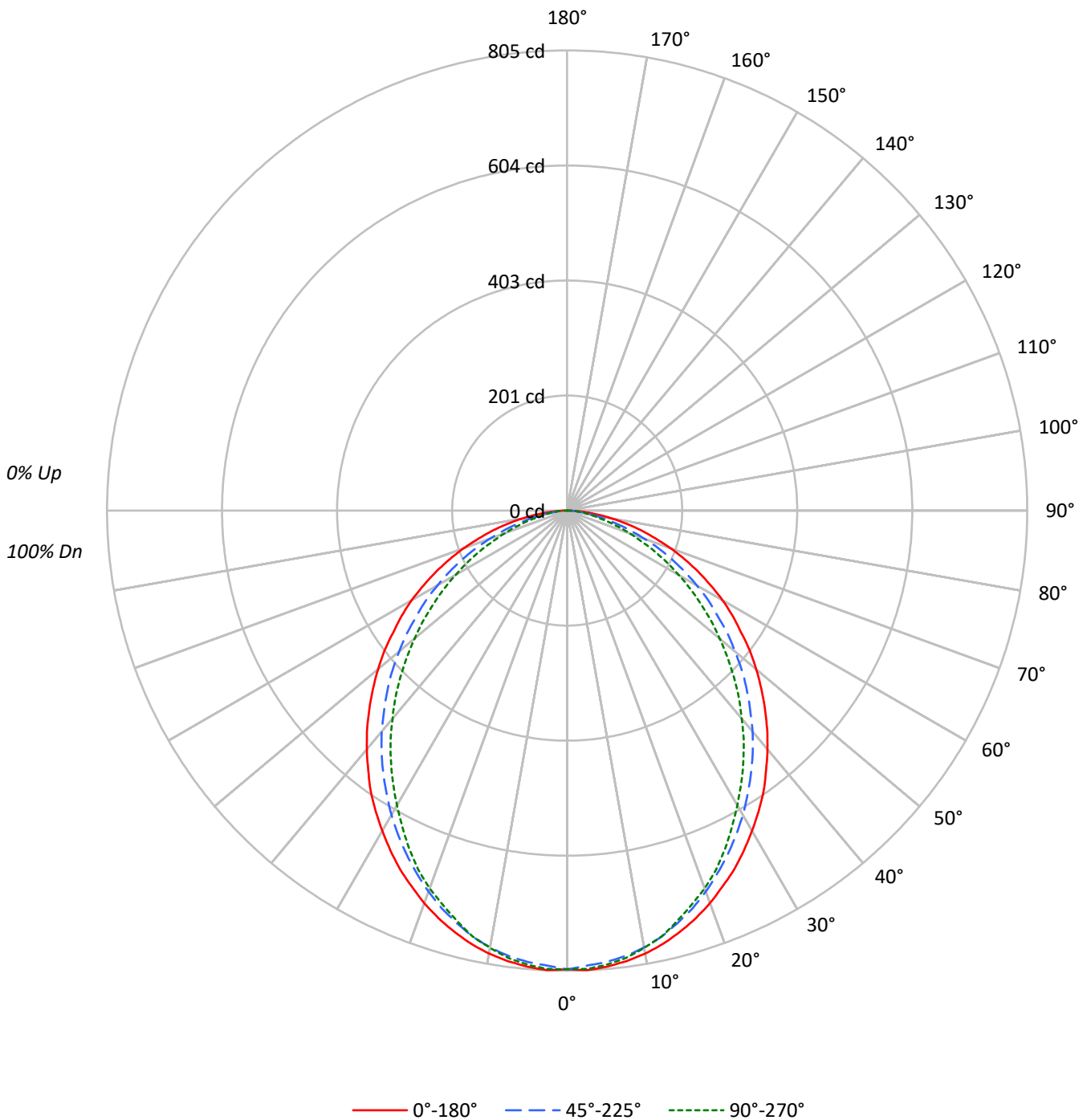
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1918.1 lumens  
Efficiency: N/A  
Efficacy: 111.5 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	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	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°	5704	5704	5704
5°	5713	5656	5688
10°	5680	5601	5605
15°	5613	5495	5469
20°	5527	5366	5319
25°	5429	5208	5122
30°	5309	5046	4886
35°	5200	4866	4662
40°	5059	4682	4410
45°	4916	4472	4148
50°	4773	4239	3852
55°	4602	3983	3543
60°	4463	3720	3207
65°	4248	3407	2839
70°	4009	2982	2421
75°	3688	2491	1972
80°	3242	1928	1621
85°	2764	1590	1500

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4916 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	3.9
10°-20°	211.7	11.0
20°-30°	308.1	16.1
30°-40°	352.8	18.4
40°-50°	345.2	18.0
50°-60°	291.5	15.2
60°-70°	204.1	10.6
70°-80°	103.6	5.4
80°-90°	25.5	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°	595.4	31.0
0°-40°	948.2	49.4
0°-60°	1584.9	82.6
0°-90°	1918.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1918.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	802	802	802	802	802	
5°	801	799	793	798	797	76
15°	763	760	747	746	743	215
25°	692	684	664	657	653	319
35°	599	585	561	544	537	374
45°	489	473	445	421	413	377
55°	371	355	321	296	286	333
65°	253	233	203	177	169	250
75°	134	118	91	76	72	142
85°	34	22	20	18	18	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	802.5	802.5	802.5	802.5	802.5
2.5°	804.8	803.0	796.7	802.5	802.5
5°	800.7	799.0	792.7	797.9	797.3
7.5°	795.0	793.3	785.8	791.0	789.3
10°	787.0	784.7	776.1	778.9	776.6
12.5°	776.1	773.8	763.4	764.6	763.4
15°	762.9	760.0	746.8	746.2	743.3
17.5°	747.9	743.9	729.6	727.8	723.3
20°	730.7	725.6	709.5	706.0	703.2
22.5°	711.2	706.0	687.1	681.9	680.2
25°	692.3	684.2	664.1	657.2	653.2
27.5°	669.9	660.7	640.0	630.8	624.0
30°	646.9	636.6	614.8	602.7	595.3
32.5°	623.4	611.3	587.8	572.9	566.6
35°	599.3	584.9	560.8	544.2	537.3
37.5°	571.7	557.4	533.3	513.7	507.4
40°	545.3	530.4	504.6	483.3	475.3
42.5°	517.8	502.3	474.1	451.7	444.9
45°	489.1	473.0	444.9	421.3	412.7
47.5°	460.4	444.3	415.0	391.5	380.6
50°	431.7	414.4	383.4	359.3	348.4
52.5°	403.0	384.0	353.6	327.8	318.0
55°	371.4	355.3	321.4	295.6	285.9
57.5°	343.3	325.5	293.3	266.9	256.0
60°	314.0	294.5	261.7	235.9	225.6
62.5°	283.0	263.5	231.9	206.1	196.9
65°	252.6	233.0	202.6	177.4	168.8
67.5°	222.1	203.8	173.4	149.8	140.1
70°	192.9	173.9	143.5	122.3	116.5
72.5°	161.9	146.9	116.5	97.6	93.0
75°	134.3	117.7	90.7	75.8	71.8
77.5°	106.2	90.1	67.2	56.8	53.4
80°	79.2	65.4	47.1	40.8	39.6
82.5°	54.5	41.3	31.0	29.8	29.3
85°	33.9	21.8	19.5	18.4	18.4
87.5°	14.4	9.2	9.2	8.6	9.2
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	17.48	19.05	17.84	19.37	19.68	15.96	17.54	16.33	17.86	18.17
	3H	19.24	20.66	19.61	20.98	21.35	17.24	18.66	17.62	18.99	19.35
	4H	19.89	21.23	20.29	21.58	21.95	17.63	18.97	18.03	19.31	19.69
	6H	20.36	21.60	20.78	21.96	22.36	17.87	19.10	18.28	19.47	19.86
	8H	20.51	21.69	20.93	22.08	22.48	17.94	19.12	18.37	19.51	19.91
	12H	20.60	21.73	21.03	22.11	22.54	18.00	19.13	18.43	19.51	19.94
4H	2H	17.88	19.21	18.27	19.56	19.94	16.65	17.98	17.05	18.33	18.71
	3H	19.84	20.95	20.25	21.35	21.75	18.11	19.22	18.52	19.62	20.02
	4H	20.62	21.62	21.05	22.04	22.47	18.58	19.58	19.01	20.00	20.43
	6H	21.21	22.08	21.67	22.53	22.98	18.90	19.77	19.35	20.21	20.67
	8H	21.40	22.21	21.86	22.66	23.12	19.00	19.82	19.47	20.26	20.73
	12H	21.53	22.26	22.01	22.74	23.21	19.09	19.82	19.57	20.30	20.77
8H	4H	20.74	21.55	21.20	22.00	22.46	18.89	19.70	19.35	20.15	20.61
	6H	21.41	22.09	21.91	22.58	23.05	19.28	19.96	19.78	20.45	20.93
	8H	21.65	22.26	22.16	22.76	23.25	19.44	20.04	19.95	20.55	21.04
	12H	21.84	22.37	22.35	22.87	23.43	19.57	20.11	20.08	20.60	21.16
12H	4H	20.73	21.46	21.21	21.94	22.41	18.92	19.66	19.41	20.13	20.60
	6H	21.40	22.01	21.92	22.52	23.01	19.33	19.94	19.84	20.45	20.93
	8H	21.68	22.22	22.19	22.71	23.27	19.53	20.07	20.04	20.56	21.12