

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: P1059362

Luminaire Tested: S123RDRP-S775D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059362  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S775D850-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

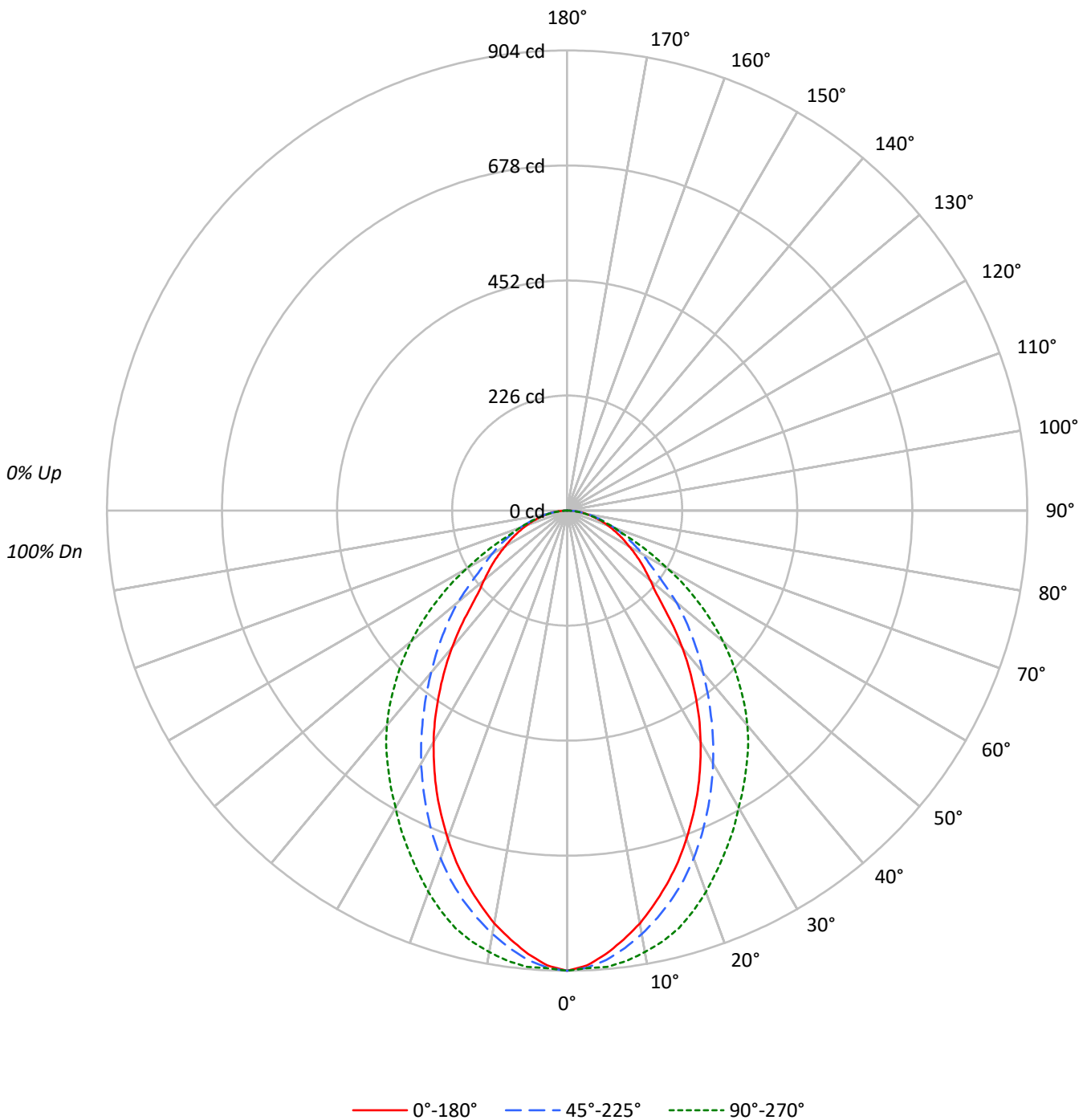
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1633.0 lumens  
Efficiency: N/A  
Efficacy: 63.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	10615	10615	10615
5°	10306	10444	10606
10°	9819	10072	10501
15°	9224	9624	10320
20°	8569	9085	9959
25°	7868	8445	9544
30°	7113	7775	9139
35°	6274	7064	8796
40°	5394	6368	8448
45°	4436	5737	7920
50°	3891	5111	7298
55°	3601	4361	6465
60°	3311	4007	5352
65°	3092	3682	4212
70°	2911	3347	3347
75°	2740	3076	2885
80°	2583	2793	2434
85°	2425	2708	1859

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7920 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.6	5.1
10°-20°	224.1	13.7
20°-30°	303.8	18.6
30°-40°	317.7	19.5
40°-50°	275.5	16.9
50°-60°	204.9	12.6
60°-70°	131.5	8.1
70°-80°	70.5	4.3
80°-90°	21.3	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°	611.5	37.4
0°-40°	929.2	56.9
0°-60°	1409.6	86.3
0°-90°	1633.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1633.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	874	889	886	892	900	82
15°	759	777	792	824	849	213
25°	607	626	652	695	737	278
35°	438	459	493	555	614	273
45°	267	287	346	420	477	210
55°	176	180	213	273	316	157
65°	111	121	132	141	152	111
75°	60	70	68	65	64	64
85°	18	22	20	17	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	904.0	904.0	904.0	904.0	904.0
2.5°	894.5	907.2	898.7	898.7	899.8
5°	874.3	889.2	886.0	892.4	899.8
7.5°	850.0	865.9	866.9	881.8	892.4
10°	823.5	839.4	844.7	865.9	880.7
12.5°	791.7	809.7	819.2	845.7	866.9
15°	758.8	776.8	791.7	823.5	848.9
17.5°	723.8	741.9	760.9	797.0	824.5
20°	685.7	704.8	727.0	763.1	797.0
22.5°	646.5	666.6	689.9	729.1	767.3
25°	607.3	626.3	651.8	695.2	736.6
27.5°	565.9	586.1	612.6	660.3	706.9
30°	524.6	544.7	573.4	624.2	674.0
32.5°	482.2	502.3	533.1	590.3	644.4
35°	437.7	458.9	492.8	555.3	613.6
37.5°	395.3	415.4	453.6	522.5	584.0
40°	351.9	373.1	415.4	489.6	551.1
42.5°	309.5	330.7	380.5	454.7	515.1
45°	267.1	287.2	345.5	419.7	476.9
47.5°	234.2	249.1	312.6	382.6	439.8
50°	213.0	218.3	279.8	346.6	399.5
52.5°	193.9	198.2	243.8	310.5	358.2
55°	175.9	180.2	213.0	273.4	315.8
57.5°	157.9	163.2	189.7	235.3	273.4
60°	141.0	147.3	170.6	201.4	227.9
62.5°	126.1	133.5	151.6	170.6	188.6
65°	111.3	120.8	132.5	141.0	151.6
67.5°	97.5	108.1	114.5	116.6	117.6
70°	84.8	95.4	97.5	97.5	97.5
72.5°	72.1	83.7	81.6	80.5	79.5
75°	60.4	69.9	67.8	64.6	63.6
77.5°	48.8	57.2	54.1	51.9	48.8
80°	38.2	44.5	41.3	39.2	36.0
82.5°	28.6	32.9	29.7	27.6	24.4
85°	18.0	22.3	20.1	17.0	13.8
87.5°	9.5	12.7	10.6	9.5	5.3
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	14.99	16.48	15.36	16.79	17.10	17.75	19.23	18.12	19.55	19.86
	3H	16.70	18.03	17.08	18.36	18.72	18.77	20.10	19.15	20.43	20.79
	4H	17.36	18.61	17.76	18.96	19.34	19.14	20.38	19.54	20.73	21.11
	6H	17.86	19.01	18.28	19.38	19.77	19.39	20.54	19.80	20.91	21.30
	8H	18.04	19.14	18.47	19.53	19.93	19.46	20.56	19.89	20.95	21.35
	12H	18.17	19.22	18.60	19.60	20.03	19.50	20.54	19.93	20.93	21.36
4H	2H	15.77	17.01	16.17	17.36	17.74	18.02	19.27	18.42	19.62	20.00
	3H	17.70	18.73	18.11	19.13	19.53	19.28	20.31	19.69	20.71	21.11
	4H	18.50	19.43	18.94	19.85	20.29	19.76	20.69	20.19	21.11	21.55
	6H	19.15	19.95	19.60	20.40	20.86	20.14	20.95	20.60	21.39	21.85
	8H	19.37	20.13	19.84	20.57	21.04	20.25	21.01	20.72	21.45	21.92
	12H	19.55	20.22	20.03	20.70	21.17	20.33	21.00	20.81	21.48	21.95
8H	4H	18.82	19.58	19.29	20.02	20.49	19.95	20.71	20.42	21.15	21.62
	6H	19.62	20.24	20.11	20.73	21.21	20.44	21.06	20.94	21.56	22.03
	8H	19.94	20.51	20.46	21.02	21.50	20.62	21.18	21.13	21.69	22.18
	12H	20.22	20.72	20.73	21.21	21.78	20.75	21.25	21.26	21.74	22.30
12H	4H	18.85	19.52	19.33	20.00	20.47	19.97	20.64	20.45	21.12	21.59
	6H	19.67	20.23	20.19	20.74	21.23	20.48	21.04	20.99	21.55	22.04
	8H	20.07	20.56	20.58	21.05	21.62	20.71	21.20	21.22	21.70	22.26