

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: P1059356

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059356
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S775D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

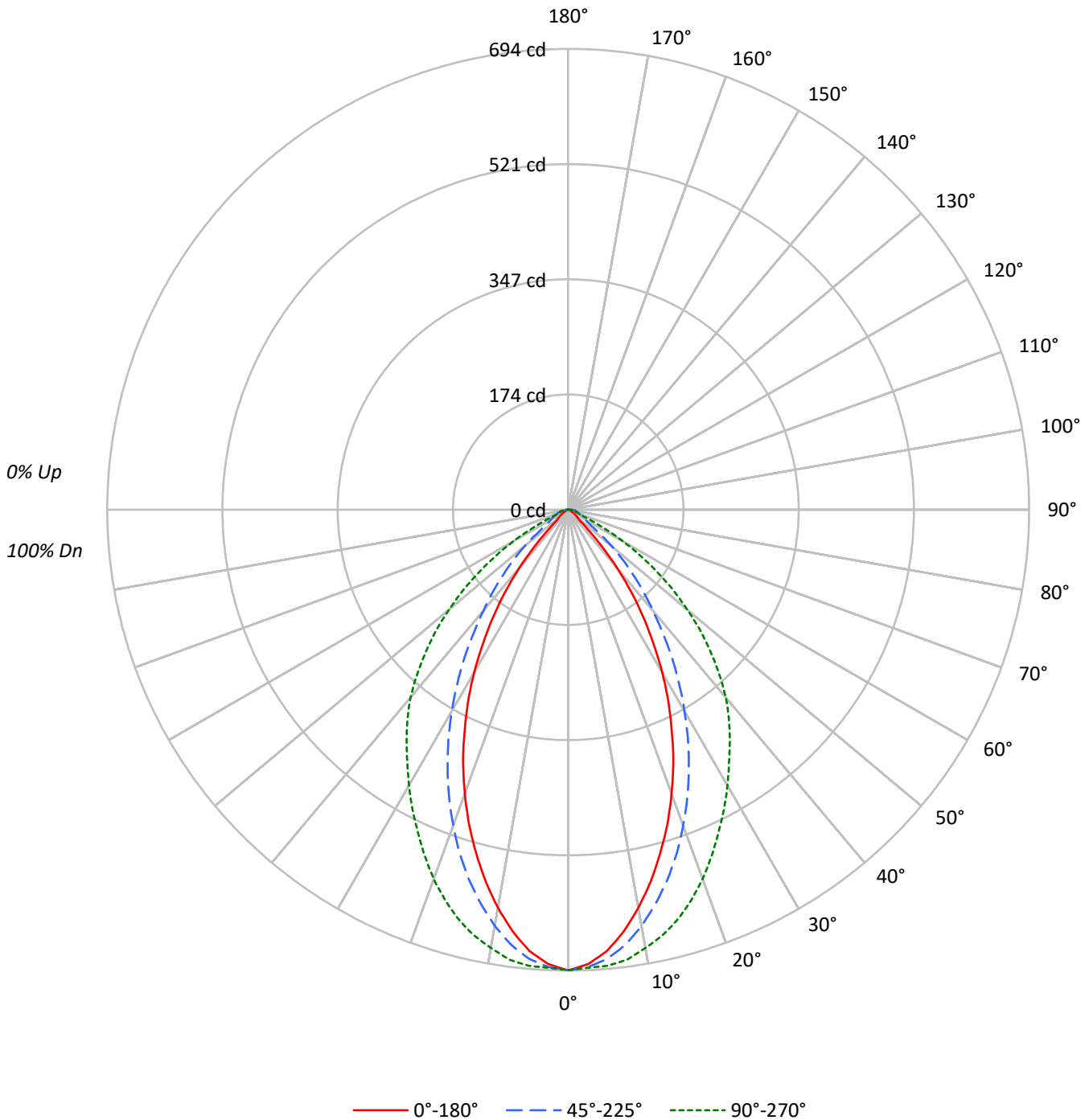
Lumens per Lamp: N/A
Luminaire Lumens: 833.1 lumens
Efficiency: N/A
Efficacy: 32.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
Input Voltage (V): 120
Input Current (A_{in}): 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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8145	8145	8145
5°	7863	8000	8125
10°	7258	7587	7991
15°	6511	7013	7761
20°	5686	6322	7395
25°	4782	5565	6939
30°	3840	4746	6500
35°	2813	3908	6081
40°	1740	3040	5658
45°	669	2290	5037
50°	329	1569	4262
55°	260	868	3343
60°	174	723	2240
65°	147	647	1003
70°	144	584	584
75°	191	626	576
80°	284	791	642
85°	431	1280	862

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5037 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	7.6
10°-20°	162.8	19.5
20°-30°	202.1	24.3
30°-40°	181.0	21.7
40°-50°	119.0	14.3
50°-60°	59.6	7.2
60°-70°	23.5	2.8
70°-80°	13.2	1.6
80°-90°	8.3	1.0
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°	428.5	51.4
0°-40°	609.5	73.2
0°-60°	788.1	94.6
0°-90°	833.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	833.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	667	678	679	683	689	62
15°	536	552	577	616	638	149
25°	369	392	430	490	536	169
35°	196	223	273	356	424	122
45°	40	67	138	232	303	38
55°	13	15	42	114	163	11
65°	5	15	23	30	36	5
75°	4	14	14	13	13	4
85°	3	10	10	10	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	693.6	693.6	693.6	693.6	693.6
2.5°	685.1	694.6	689.3	689.3	690.4
5°	667.1	677.7	678.7	683.0	689.3
7.5°	640.6	654.3	660.7	673.4	683.0
10°	608.7	623.6	636.3	658.6	670.2
12.5°	573.7	588.6	607.7	638.4	656.5
15°	535.6	552.5	576.9	616.2	638.4
17.5°	496.3	513.3	543.0	587.5	616.2
20°	455.0	474.1	505.9	556.8	591.8
22.5°	413.6	434.8	468.7	523.9	564.2
25°	369.1	392.4	429.5	490.0	535.6
27.5°	326.6	351.0	390.3	456.0	508.0
30°	283.2	307.6	350.0	421.0	479.4
32.5°	238.6	266.2	310.7	388.1	450.7
35°	196.2	222.7	272.6	356.3	424.2
37.5°	154.8	181.3	233.3	325.6	397.7
40°	113.5	141.0	198.3	295.9	369.1
42.5°	74.2	102.9	167.6	266.2	337.2
45°	40.3	66.8	137.9	232.3	303.3
47.5°	22.3	36.1	111.4	200.4	270.4
50°	18.0	20.1	85.9	170.7	233.3
52.5°	14.8	17.0	61.5	142.1	199.4
55°	12.7	14.8	42.4	114.5	163.3
57.5°	10.6	12.7	33.9	88.0	128.3
60°	7.4	12.7	30.8	64.7	95.4
62.5°	6.4	12.7	26.5	44.5	63.6
65°	5.3	14.8	23.3	29.7	36.1
67.5°	4.2	14.8	20.1	19.1	19.1
70°	4.2	14.8	17.0	15.9	17.0
72.5°	4.2	15.9	15.9	14.8	14.8
75°	4.2	13.8	13.8	12.7	12.7
77.5°	4.2	12.7	12.7	11.7	11.7
80°	4.2	11.7	11.7	10.6	9.5
82.5°	4.2	10.6	10.6	9.5	8.5
85°	3.2	9.5	9.5	9.5	6.4
87.5°	3.2	8.5	9.5	8.5	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	0.00	0.99	0.10	1.30	1.62	13.83	15.09	14.20	15.40	15.72
	3H	2.25	3.36	2.63	3.69	4.05	13.91	15.02	14.29	15.35	15.72
	4H	3.41	4.45	3.82	4.80	5.18	13.97	15.01	14.38	15.36	15.74
	6H	4.46	5.41	4.88	5.78	6.18	14.07	15.02	14.49	15.39	15.79
	8H	5.00	5.90	5.43	6.29	6.69	14.13	15.03	14.56	15.42	15.83
	12H	5.48	6.34	5.91	6.72	7.15	14.20	15.06	14.64	15.45	15.88
4H	2H	3.00	4.03	3.40	4.38	4.77	13.69	14.73	14.10	15.08	15.46
	3H	5.46	6.30	5.87	6.71	7.11	13.87	14.71	14.28	15.12	15.52
	4H	6.80	7.56	7.24	7.98	8.43	13.99	14.75	14.43	15.17	15.61
	6H	7.93	8.59	8.40	9.04	9.50	14.21	14.86	14.67	15.31	15.78
	8H	8.44	9.05	8.91	9.50	9.97	14.33	14.94	14.80	15.39	15.86
	12H	8.90	9.44	9.39	9.92	10.40	14.49	15.03	14.98	15.52	15.99
8H	4H	7.72	8.33	8.19	8.78	9.25	14.00	14.61	14.47	15.05	15.53
	6H	9.32	9.83	9.83	10.32	10.80	14.33	14.83	14.83	15.33	15.81
	8H	10.15	10.60	10.67	11.12	11.61	14.55	15.01	15.08	15.52	16.01
	12H	10.93	11.33	11.44	11.82	12.39	14.88	15.28	15.40	15.77	16.35
12H	4H	7.89	8.43	8.38	8.91	9.39	13.99	14.52	14.47	15.01	15.48
	6H	9.64	10.09	10.16	10.61	11.10	14.36	14.81	14.88	15.33	15.82
	8H	10.65	11.05	11.16	11.54	12.11	14.67	15.07	15.18	15.56	16.13