

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: P1059360

Luminaire Tested: S123RDRP-S775D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059360
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S775D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

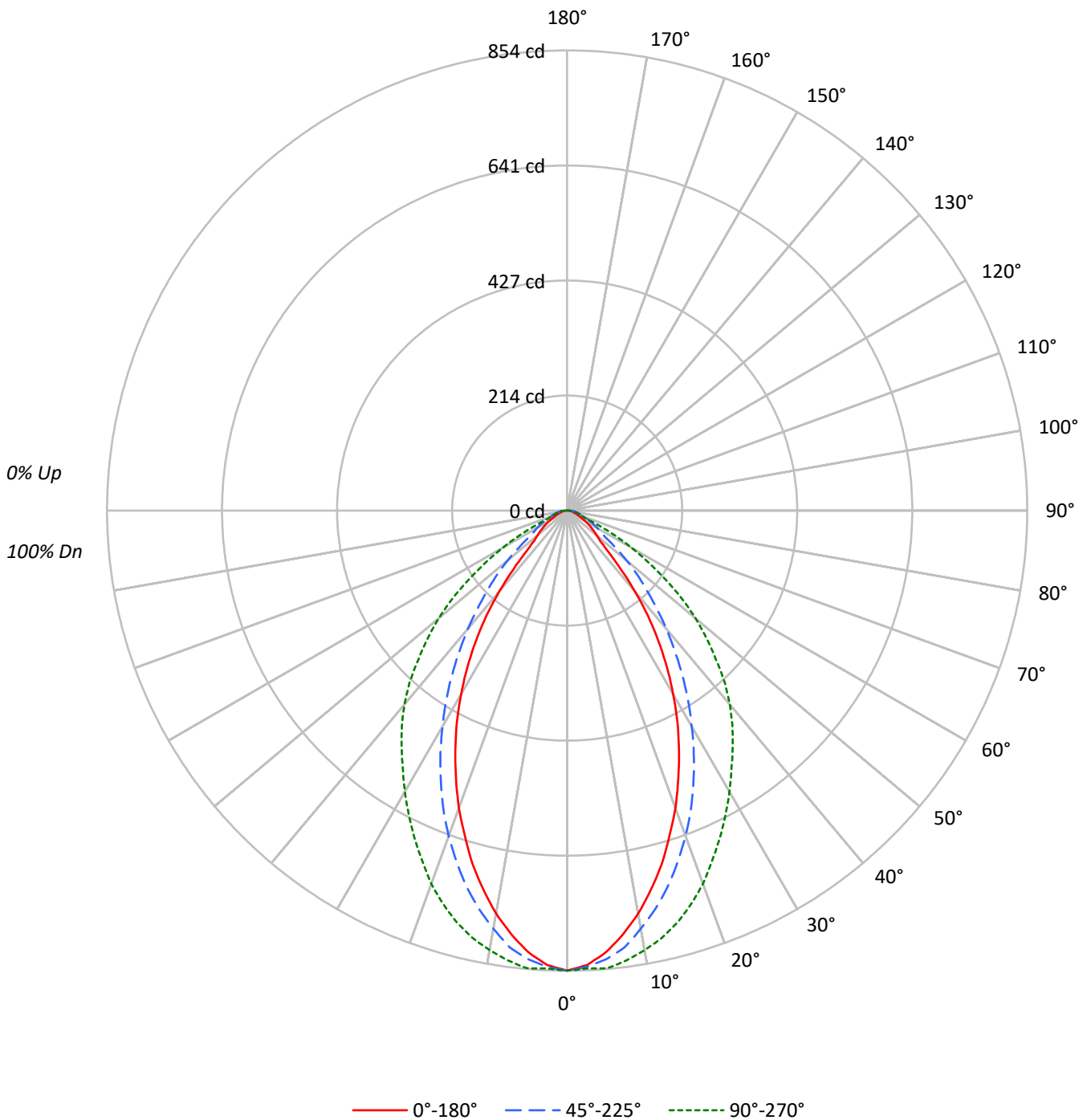
Lumens per Lamp: N/A
Luminaire Lumens: 1146.1 lumens
Efficiency: N/A
Efficacy: 44.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			89									
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			79									
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																			71									
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64																			64									
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58																			58									
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			52									
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48																			48									
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			44									
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40																			40									
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37																			37									

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10026	10026	10026
5°	9701	9851	10051
10°	9055	9396	9876
15°	8252	8780	9618
20°	7343	8031	9211
25°	6362	7187	8685
30°	5335	6270	8168
35°	4226	5337	7678
40°	2991	4390	7201
45°	1762	3469	6481
50°	1317	2634	5676
55°	1108	1781	4559
60°	897	1519	3239
65°	709	1298	1709
70°	618	1130	1057
75°	576	1057	1012
80°	575	1150	1001
85°	714	1711	1280

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6481 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	6.9
10°-20°	204.2	17.8
20°-30°	260.1	22.7
30°-40°	244.6	21.3
40°-50°	176.2	15.4
50°-60°	101.7	8.9
60°-70°	46.5	4.1
70°-80°	23.2	2.0
80°-90°	11.0	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°	542.8	47.4
0°-40°	787.4	68.7
0°-60°	1065.4	93.0
0°-90°	1146.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	823	837	836	844	853	77
15°	679	703	722	762	791	189
25°	491	516	555	616	670	225
35°	295	320	372	458	536	183
45°	106	133	209	314	390	90
55°	54	56	87	165	223	48
65°	26	36	47	52	62	26
75°	13	24	23	22	22	14
85°	5	12	13	12	10	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	853.8	853.8	853.8	853.8	853.8
2.5°	844.2	854.8	847.4	848.4	850.6
5°	823.0	836.8	835.7	844.2	852.7
7.5°	793.3	809.2	817.7	830.4	842.1
10°	759.4	777.4	788.0	811.3	828.3
12.5°	720.1	743.5	757.2	788.0	812.4
15°	678.8	703.2	722.2	762.5	791.2
17.5°	632.1	658.6	683.0	730.7	765.7
20°	587.6	613.0	642.7	694.7	737.1
22.5°	538.8	566.3	600.3	655.4	703.2
25°	491.0	516.5	554.7	616.2	670.3
27.5°	443.3	468.8	509.1	576.9	636.3
30°	393.5	420.0	462.4	537.7	602.4
32.5°	344.7	370.1	417.9	499.5	567.4
35°	294.8	320.3	372.3	458.2	535.6
37.5°	246.1	272.6	327.7	424.2	503.8
40°	195.1	223.8	286.4	389.2	469.8
42.5°	147.4	178.2	245.0	353.2	432.7
45°	106.1	132.6	208.9	313.9	390.3
47.5°	82.7	96.5	176.1	273.6	351.0
50°	72.1	74.2	144.2	236.5	310.7
52.5°	62.6	64.7	113.5	201.5	268.3
55°	54.1	56.2	87.0	165.4	222.7
57.5°	45.6	48.8	72.1	131.5	179.2
60°	38.2	42.4	64.7	100.8	137.9
62.5°	30.8	38.2	55.1	74.2	98.6
65°	25.5	36.1	46.7	52.0	61.5
67.5°	21.2	32.9	39.2	37.1	36.1
70°	18.0	29.7	32.9	29.7	30.8
72.5°	14.8	27.6	27.6	25.5	25.5
75°	12.7	24.4	23.3	22.3	22.3
77.5°	10.6	21.2	20.2	19.1	18.0
80°	8.5	17.0	17.0	15.9	14.8
82.5°	7.4	13.8	13.8	13.8	11.7
85°	5.3	11.7	12.7	11.7	9.5
87.5°	4.2	10.6	10.6	9.5	6.4
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	7.98	9.30	8.35	9.61	9.93	15.34	16.66	15.71	16.97	17.29
	3H	9.37	10.54	9.75	10.87	11.23	15.57	16.74	15.95	17.07	17.44
	4H	9.92	11.01	10.32	11.36	11.74	15.69	16.78	16.09	17.13	17.51
	6H	10.35	11.36	10.77	11.73	12.12	15.80	16.80	16.22	17.17	17.57
	8H	10.53	11.48	10.96	11.87	12.28	15.85	16.80	16.28	17.19	17.60
	12H	10.69	11.59	11.12	11.98	12.41	15.91	16.82	16.34	17.20	17.63
4H	2H	9.08	10.17	9.48	10.52	10.91	15.30	16.39	15.70	16.74	17.12
	3H	10.74	11.64	11.16	12.04	12.44	15.66	16.55	16.07	16.96	17.36
	4H	11.55	12.35	11.99	12.77	13.21	15.86	16.66	16.29	17.08	17.52
	6H	12.19	12.88	12.65	13.33	13.79	16.09	16.78	16.55	17.22	17.69
	8H	12.42	13.07	12.89	13.52	13.99	16.19	16.84	16.66	17.28	17.75
	12H	12.64	13.21	13.12	13.69	14.17	16.32	16.89	16.80	17.37	17.85
8H	4H	12.00	12.64	12.46	13.09	13.56	15.90	16.54	16.37	16.99	17.46
	6H	12.91	13.44	13.41	13.93	14.41	16.22	16.75	16.73	17.25	17.73
	8H	13.33	13.80	13.85	14.32	14.81	16.41	16.89	16.94	17.41	17.90
	12H	13.74	14.17	14.26	14.66	15.23	16.66	17.09	17.18	17.58	18.15
12H	4H	12.05	12.62	12.54	13.11	13.58	15.89	16.46	16.37	16.94	17.41
	6H	13.04	13.52	13.56	14.03	14.53	16.24	16.72	16.76	17.23	17.72
	8H	13.58	14.00	14.10	14.50	15.07	16.50	16.92	17.01	17.41	17.98