

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: P1059330

Luminaire Tested: S123RDRP-S775D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059330
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S775D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

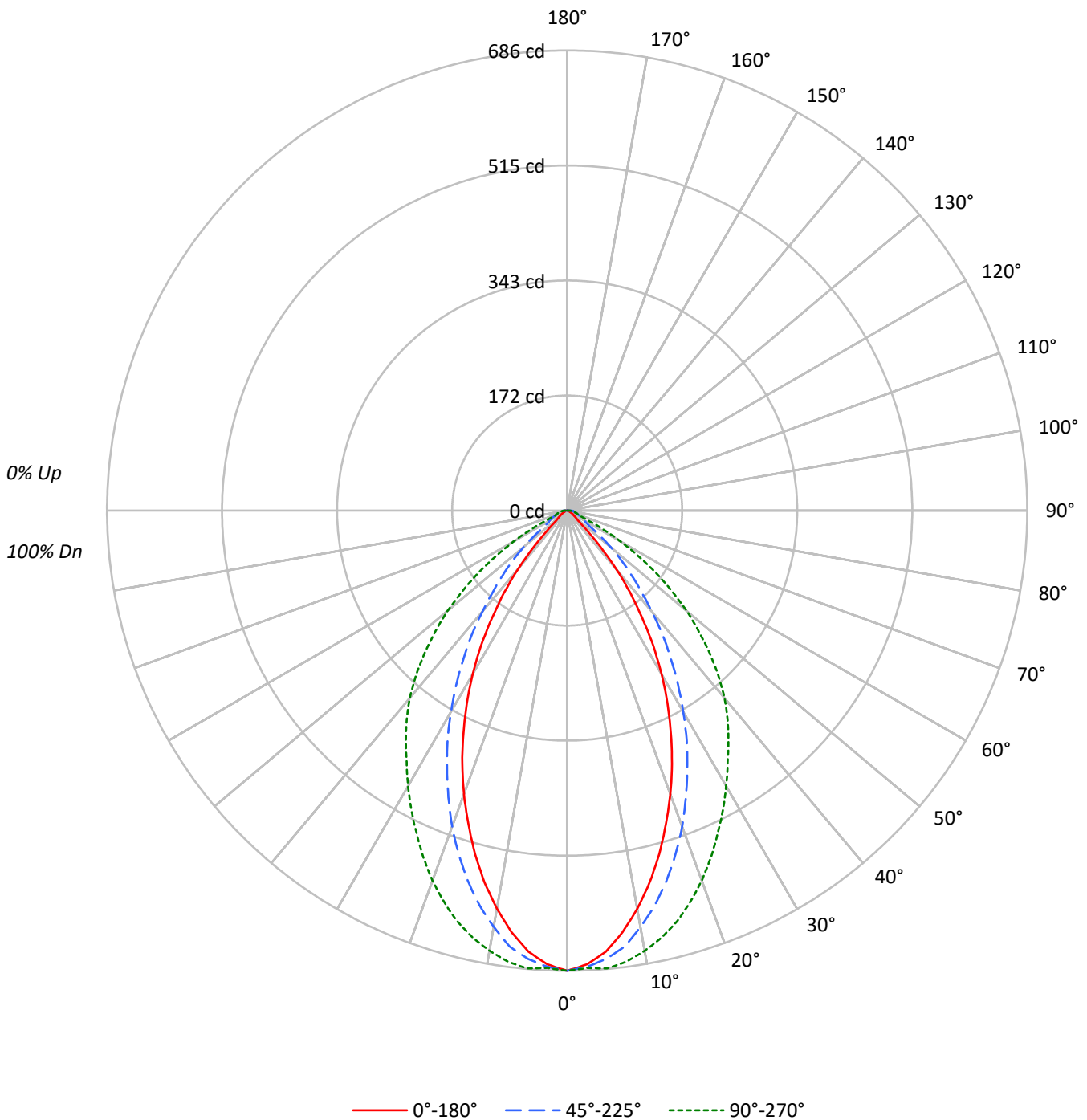
Lumens per Lamp: N/A
Luminaire Lumens: 823.7 lumens
Efficiency: N/A
Efficacy: 31.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	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	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
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	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8056	8056	8056
5°	7780	7907	8077
10°	7182	7514	7945
15°	6444	6949	7705
20°	5622	6264	7334
25°	4742	5490	6880
30°	3814	4694	6430
35°	2791	3865	6009
40°	1741	3012	5596
45°	659	2245	4985
50°	312	1547	4249
55°	240	850	3286
60°	169	721	2161
65°	125	625	903
70°	124	587	587
75°	163	612	612
80°	243	730	669
85°	485	1213	970

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4985 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	7.6
10°-20°	161.5	19.6
20°-30°	199.9	24.3
30°-40°	179.2	21.8
40°-50°	117.5	14.3
50°-60°	58.8	7.1
60°-70°	22.9	2.8
70°-80°	12.9	1.6
80°-90°	8.0	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°	424.4	51.5
0°-40°	603.6	73.3
0°-60°	779.9	94.7
0°-90°	823.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	823.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	686	686	686	686	686	
5°	660	671	671	678	685	61
15°	530	552	572	610	634	148
25°	366	389	424	484	531	167
35°	195	221	270	351	419	121
45°	40	64	135	232	300	38
55°	12	14	42	114	160	11
65°	4	14	22	30	32	5
75°	4	14	14	14	14	4
85°	4	9	9	9	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	686.1	686.1	686.1	686.1	686.1
2.5°	677.1	687.0	680.7	681.6	682.5
5°	660.0	670.8	670.8	678.0	685.2
7.5°	633.8	646.4	655.5	668.1	678.0
10°	602.3	617.6	630.2	652.8	666.3
12.5°	568.0	586.9	603.2	632.9	651.8
15°	530.1	551.8	571.6	609.5	633.8
17.5°	489.6	511.2	537.3	581.5	611.3
20°	449.9	471.5	501.3	550.9	586.9
22.5°	408.4	431.0	462.5	517.5	559.9
25°	366.0	388.6	423.7	484.2	531.0
27.5°	323.7	346.2	385.9	451.7	503.1
30°	281.3	303.8	346.2	416.5	474.2
32.5°	238.9	263.3	307.4	384.1	445.4
35°	194.7	220.9	269.6	350.7	419.2
37.5°	154.2	178.5	233.5	321.9	393.1
40°	113.6	139.7	196.5	293.9	365.1
42.5°	73.9	101.9	163.2	263.3	333.6
45°	39.7	64.0	135.2	231.7	300.2
47.5°	21.6	35.2	109.1	198.3	266.0
50°	17.1	19.8	84.7	169.5	232.6
52.5°	14.4	16.2	60.4	142.5	195.6
55°	11.7	14.4	41.5	113.6	160.5
57.5°	9.9	12.6	32.5	88.4	125.3
60°	7.2	10.8	30.7	64.9	92.0
62.5°	5.4	11.7	27.0	45.1	60.4
65°	4.5	13.5	22.5	29.8	32.5
67.5°	3.6	14.4	19.8	18.9	18.9
70°	3.6	13.5	17.1	16.2	17.1
72.5°	3.6	14.4	15.3	14.4	15.3
75°	3.6	13.5	13.5	13.5	13.5
77.5°	3.6	12.6	12.6	11.7	11.7
80°	3.6	10.8	10.8	10.8	9.9
82.5°	3.6	9.9	9.9	9.9	8.1
85°	3.6	9.0	9.0	9.0	7.2
87.5°	2.7	8.1	9.0	8.1	5.4
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	0.00	0.85	0.00	1.16	1.48	13.86	15.11	14.22	15.42	15.74
	3H	1.93	3.04	2.31	3.37	3.73	13.94	15.05	14.32	15.38	15.74
	4H	3.03	4.06	3.43	4.41	4.80	14.01	15.05	14.42	15.40	15.78
	6H	4.02	4.97	4.44	5.34	5.73	14.12	15.06	14.53	15.44	15.83
	8H	4.50	5.40	4.93	5.79	6.20	14.17	15.07	14.61	15.46	15.87
	12H	5.06	5.92	5.49	6.30	6.73	14.25	15.11	14.69	15.50	15.93
4H	2H	2.84	3.88	3.25	4.23	4.61	13.71	14.74	14.11	15.10	15.48
	3H	5.16	6.01	5.58	6.41	6.82	13.89	14.73	14.30	15.13	15.54
	4H	6.53	7.29	6.97	7.71	8.15	14.04	14.79	14.47	15.21	15.66
	6H	7.62	8.27	8.08	8.72	9.19	14.26	14.91	14.72	15.36	15.83
	8H	8.08	8.69	8.55	9.13	9.61	14.38	14.99	14.85	15.44	15.91
	12H	8.57	9.11	9.06	9.59	10.07	14.56	15.09	15.04	15.58	16.05
8H	4H	7.51	8.12	7.98	8.56	9.04	14.03	14.64	14.50	15.09	15.56
	6H	9.03	9.53	9.53	10.02	10.51	14.37	14.87	14.87	15.36	15.85
	8H	9.80	10.25	10.32	10.77	11.26	14.60	15.05	15.12	15.57	16.06
	12H	10.61	11.00	11.12	11.50	12.07	14.93	15.33	15.45	15.83	16.40
12H	4H	7.68	8.22	8.17	8.70	9.18	14.02	14.55	14.50	15.04	15.51
	6H	9.34	9.79	9.87	10.31	10.80	14.39	14.84	14.91	15.35	15.85
	8H	10.30	10.70	10.81	11.19	11.76	14.70	15.09	15.21	15.59	16.16