

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: P1059339

Luminaire Tested: S123RDRP-S775D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059339
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-S775D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

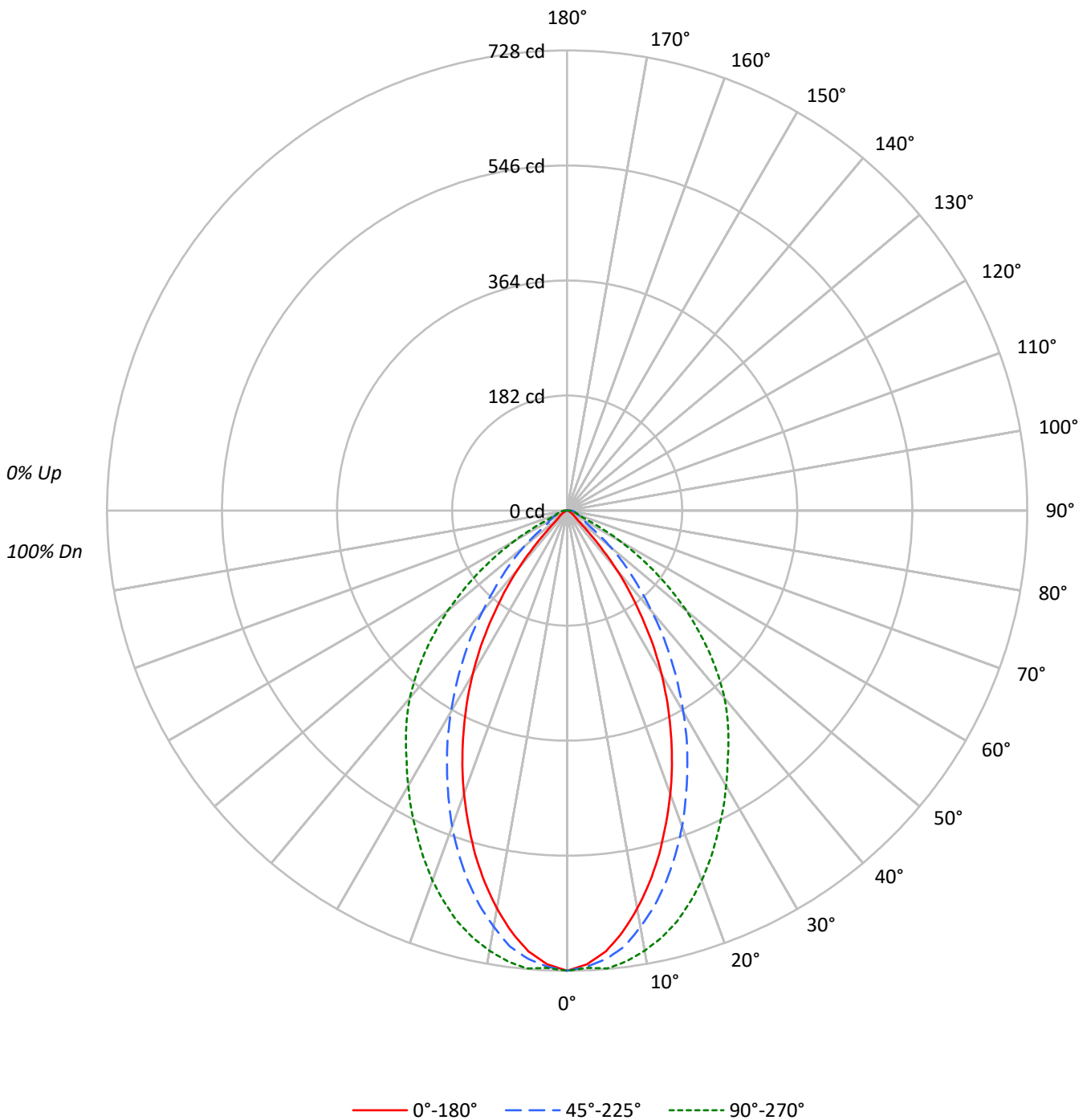
Lumens per Lamp: N/A
Luminaire Lumens: 873.9 lumens
Efficiency: N/A
Efficacy: 33.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			90									
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81																			81									
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73																			73									
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66																			66									
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60																			60									
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																			55									
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50																			50									
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47																			47									
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43																			43									
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40																			40									

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8547	8547	8547
5°	8253	8389	8569
10°	7619	7972	8429
15°	6838	7373	8175
20°	5964	6645	7781
25°	5032	5825	7300
30°	4046	4980	6822
35°	2962	4100	6376
40°	1847	3196	5938
45°	699	2383	5289
50°	332	1642	4509
55°	254	901	3486
60°	181	763	2292
65°	133	664	956
70°	130	625	625
75°	172	649	649
80°	257	778	710
85°	512	1293	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5289 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	7.6
10°-20°	171.3	19.6
20°-30°	212.1	24.3
30°-40°	190.1	21.8
40°-50°	124.7	14.3
50°-60°	62.4	7.1
60°-70°	24.3	2.8
70°-80°	13.7	1.6
80°-90°	8.5	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°	450.3	51.5
0°-40°	640.4	73.3
0°-60°	827.5	94.7
0°-90°	873.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	873.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	700	712	712	719	727	65
15°	562	585	606	647	672	157
25°	388	412	450	514	563	177
35°	207	234	286	372	445	129
45°	42	68	144	246	318	40
55°	12	15	44	120	170	11
65°	5	14	24	32	34	5
75°	4	14	14	14	14	4
85°	4	10	10	10	8	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.9	727.9	727.9	727.9	727.9
2.5°	718.4	728.9	722.2	723.2	724.1
5°	700.2	711.7	711.7	719.3	727.0
7.5°	672.5	685.8	695.4	708.8	719.3
10°	639.0	655.2	668.6	692.5	706.9
12.5°	602.6	622.7	639.9	671.5	691.6
15°	562.5	585.4	606.5	646.6	672.5
17.5°	519.4	542.4	570.1	617.0	648.5
20°	477.3	500.3	531.8	584.5	622.7
22.5°	433.3	457.2	490.7	549.1	594.0
25°	388.4	412.3	449.6	513.7	563.4
27.5°	343.4	367.3	409.4	479.2	533.8
30°	298.4	322.4	367.3	441.9	503.1
32.5°	253.5	279.3	326.2	407.5	472.5
35°	206.6	234.4	286.0	372.1	444.8
37.5°	163.6	189.4	247.7	341.5	417.1
40°	120.5	148.3	208.5	311.8	387.4
42.5°	78.4	108.1	173.1	279.3	353.9
45°	42.1	67.9	143.5	245.8	318.5
47.5°	23.0	37.3	115.7	210.4	282.2
50°	18.2	21.0	89.9	179.8	246.8
52.5°	15.3	17.2	64.1	151.1	207.6
55°	12.4	15.3	44.0	120.5	170.3
57.5°	10.5	13.4	34.4	93.7	133.0
60°	7.7	11.5	32.5	68.9	97.6
62.5°	5.7	12.4	28.7	47.8	64.1
65°	4.8	14.3	23.9	31.6	34.4
67.5°	3.8	15.3	21.0	20.1	20.1
70°	3.8	14.3	18.2	17.2	18.2
72.5°	3.8	15.3	16.3	15.3	16.3
75°	3.8	14.3	14.3	14.3	14.3
77.5°	3.8	13.4	13.4	12.4	12.4
80°	3.8	11.5	11.5	11.5	10.5
82.5°	3.8	10.5	10.5	10.5	8.6
85°	3.8	9.6	9.6	9.6	7.7
87.5°	2.9	8.6	9.6	8.6	5.7
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	1.07	0.18	1.38	1.70	14.06	15.31	14.42	15.63	15.94
	3H	2.14	3.25	2.52	3.58	3.94	14.14	15.25	14.52	15.58	15.95
	4H	3.23	4.27	3.64	4.62	5.00	14.22	15.25	14.62	15.60	15.98
	6H	4.22	5.17	4.64	5.54	5.94	14.32	15.27	14.73	15.64	16.03
	8H	4.70	5.60	5.13	5.99	6.40	14.38	15.27	14.81	15.67	16.07
	12H	5.26	6.12	5.69	6.50	6.93	14.46	15.32	14.89	15.70	16.13
4H	2H	3.06	4.09	3.46	4.45	4.83	13.91	14.95	14.32	15.30	15.68
	3H	5.37	6.22	5.79	6.62	7.03	14.09	14.93	14.50	15.34	15.74
	4H	6.74	7.49	7.17	7.91	8.36	14.24	14.99	14.67	15.41	15.86
	6H	7.83	8.48	8.29	8.93	9.40	14.46	15.12	14.93	15.56	16.03
	8H	8.28	8.89	8.75	9.34	9.81	14.59	15.20	15.06	15.64	16.12
	12H	8.78	9.31	9.26	9.80	10.27	14.76	15.30	15.25	15.79	16.26
8H	4H	7.72	8.33	8.19	8.77	9.24	14.24	14.85	14.71	15.29	15.76
	6H	9.24	9.74	9.74	10.24	10.72	14.57	15.07	15.08	15.57	16.05
	8H	10.01	10.46	10.54	10.98	11.47	14.80	15.25	15.33	15.77	16.26
	12H	10.82	11.22	11.33	11.71	12.28	15.14	15.54	15.66	16.04	16.61
12H	4H	7.89	8.43	8.38	8.91	9.39	14.22	14.76	14.71	15.24	15.72
	6H	9.56	10.01	10.08	10.52	11.01	14.59	15.04	15.12	15.56	16.05
	8H	10.51	10.91	11.03	11.40	11.98	14.90	15.30	15.42	15.80	16.37