

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059745

Luminaire Tested: S123RDR-H775D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059745
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

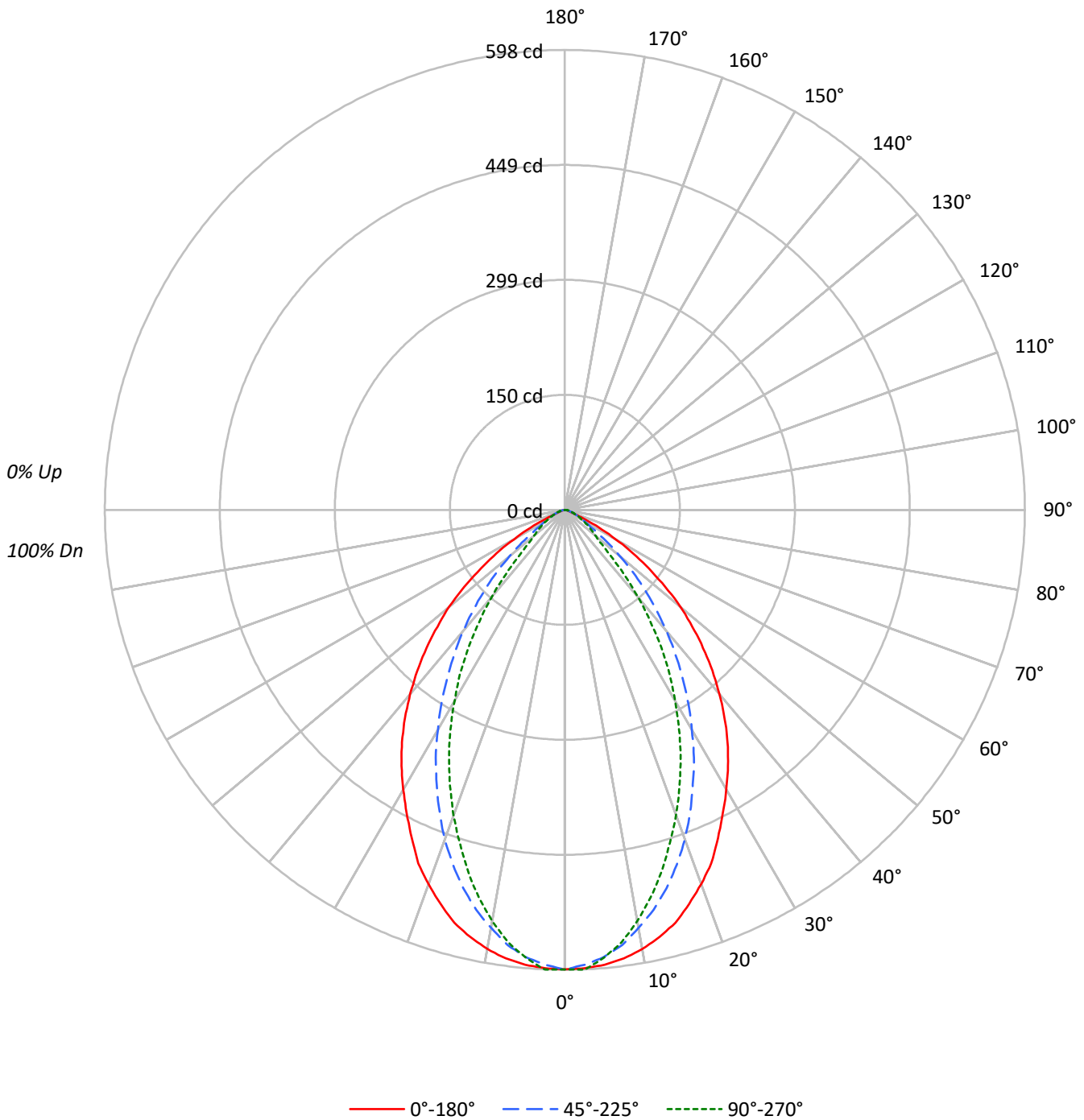
Lumens per Lamp: N/A
Luminaire Lumens: 771.3 lumens
Efficiency: N/A
Efficacy: 32.8 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): 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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7016	7016	7016
5°	6999	6879	6890
10°	6914	6583	6473
15°	6757	6195	5914
20°	6472	5698	5282
25°	6100	5105	4614
30°	5693	4477	3887
35°	5290	3819	3129
40°	4792	3147	2269
45°	4223	2443	1367
50°	3582	1706	930
55°	2727	1022	776
60°	1780	651	608
65°	745	489	489
70°	254	350	381
75°	209	250	295
80°	122	189	250
85°	121	121	243

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4223 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.2	7.2
10°-20°	144.4	18.7
20°-30°	185.2	24.0
30°-40°	173.8	22.5
40°-50°	121.2	15.7
50°-60°	62.7	8.1
60°-70°	21.4	2.8
70°-80°	6.1	0.8
80°-90°	1.3	0.2
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°	384.8	49.9
0°-40°	558.6	72.4
0°-60°	742.5	96.3
0°-90°	771.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	771.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	594	593	584	586	584	56
15°	556	542	510	493	486	156
25°	471	441	394	367	356	216
35°	369	324	266	232	218	230
45°	254	208	147	102	82	196
55°	133	100	50	39	38	120
65°	27	23	18	17	18	32
75°	5	5	6	6	6	5
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	597.5	597.5	597.5	597.5	597.5
2.5°	596.5	597.5	591.9	597.5	598.4
5°	593.8	592.8	583.6	586.4	584.5
7.5°	588.2	585.4	570.6	566.9	566.9
10°	579.9	574.3	552.1	545.7	542.9
12.5°	568.8	561.4	532.7	520.7	516.1
15°	555.8	542.0	509.6	493.0	486.5
17.5°	537.3	518.9	483.7	464.3	454.1
20°	517.9	494.8	456.0	432.8	422.7
22.5°	497.6	469.8	425.4	400.5	389.4
25°	470.8	441.2	394.0	367.2	356.1
27.5°	444.9	413.4	363.5	333.0	321.9
30°	419.9	382.9	330.2	300.6	286.7
32.5°	394.9	353.3	298.7	266.4	253.4
35°	369.0	323.7	266.4	232.1	218.3
37.5°	341.3	295.0	235.8	198.8	182.2
40°	312.6	264.5	205.3	163.7	148.0
42.5°	283.9	236.8	174.8	132.3	113.8
45°	254.3	208.1	147.1	101.7	82.3
47.5°	224.7	179.4	120.2	74.0	62.0
50°	196.1	152.6	93.4	54.6	50.9
52.5°	164.6	126.7	70.3	45.3	44.4
55°	133.2	99.9	49.9	38.8	37.9
57.5°	105.4	77.7	36.1	32.4	31.4
60°	75.8	55.5	27.7	26.8	25.9
62.5°	49.9	37.9	22.2	21.3	21.3
65°	26.8	23.1	17.6	16.6	17.6
67.5°	11.1	12.9	12.9	13.9	13.9
70°	7.4	8.3	10.2	11.1	11.1
72.5°	5.5	6.5	7.4	8.3	8.3
75°	4.6	4.6	5.5	6.5	6.5
77.5°	2.8	3.7	3.7	4.6	5.5
80°	1.8	2.8	2.8	3.7	3.7
82.5°	0.9	1.8	1.8	2.8	2.8
85°	0.9	0.9	0.9	0.9	1.8
87.5°	0.0	0.0	0.0	0.0	0.9
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	13.10	14.36	13.47	14.67	14.99	6.61	7.87	6.98	8.18	8.50
	3H	13.05	14.16	13.43	14.49	14.86	7.39	8.50	7.77	8.83	9.19
	4H	13.00	14.03	13.41	14.38	14.77	7.59	8.62	7.99	8.97	9.35
	6H	12.93	13.87	13.35	14.25	14.64	7.73	8.67	8.15	9.04	9.44
	8H	12.89	13.78	13.32	14.17	14.58	7.77	8.66	8.20	9.05	9.46
	12H	12.84	13.70	13.28	14.08	14.51	7.78	8.63	8.22	9.02	9.45
4H	2H	12.95	13.98	13.35	14.33	14.71	6.87	7.90	7.27	8.25	8.63
	3H	12.93	13.77	13.35	14.17	14.58	7.78	8.61	8.19	9.02	9.42
	4H	12.88	13.62	13.32	14.04	14.49	8.05	8.79	8.49	9.21	9.66
	6H	12.82	13.46	13.29	13.91	14.38	8.26	8.90	8.73	9.35	9.82
	8H	12.77	13.37	13.24	13.81	14.29	8.32	8.92	8.80	9.37	9.84
	12H	12.73	13.25	13.21	13.73	14.21	8.36	8.88	8.85	9.37	9.84
8H	4H	12.77	13.36	13.24	13.81	14.28	8.03	8.63	8.50	9.08	9.55
	6H	12.71	13.19	13.21	13.69	14.17	8.30	8.78	8.80	9.28	9.76
	8H	12.65	13.09	13.18	13.61	14.10	8.41	8.84	8.93	9.36	9.85
	12H	12.62	13.00	13.13	13.50	14.07	8.48	8.86	9.00	9.36	9.93
12H	4H	12.72	13.25	13.21	13.73	14.20	7.99	8.52	8.48	9.00	9.48
	6H	12.65	13.08	13.17	13.60	14.09	8.26	8.69	8.78	9.21	9.71
	8H	12.62	13.00	13.13	13.50	14.07	8.40	8.78	8.92	9.28	9.85