

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: P1059355

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059355
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

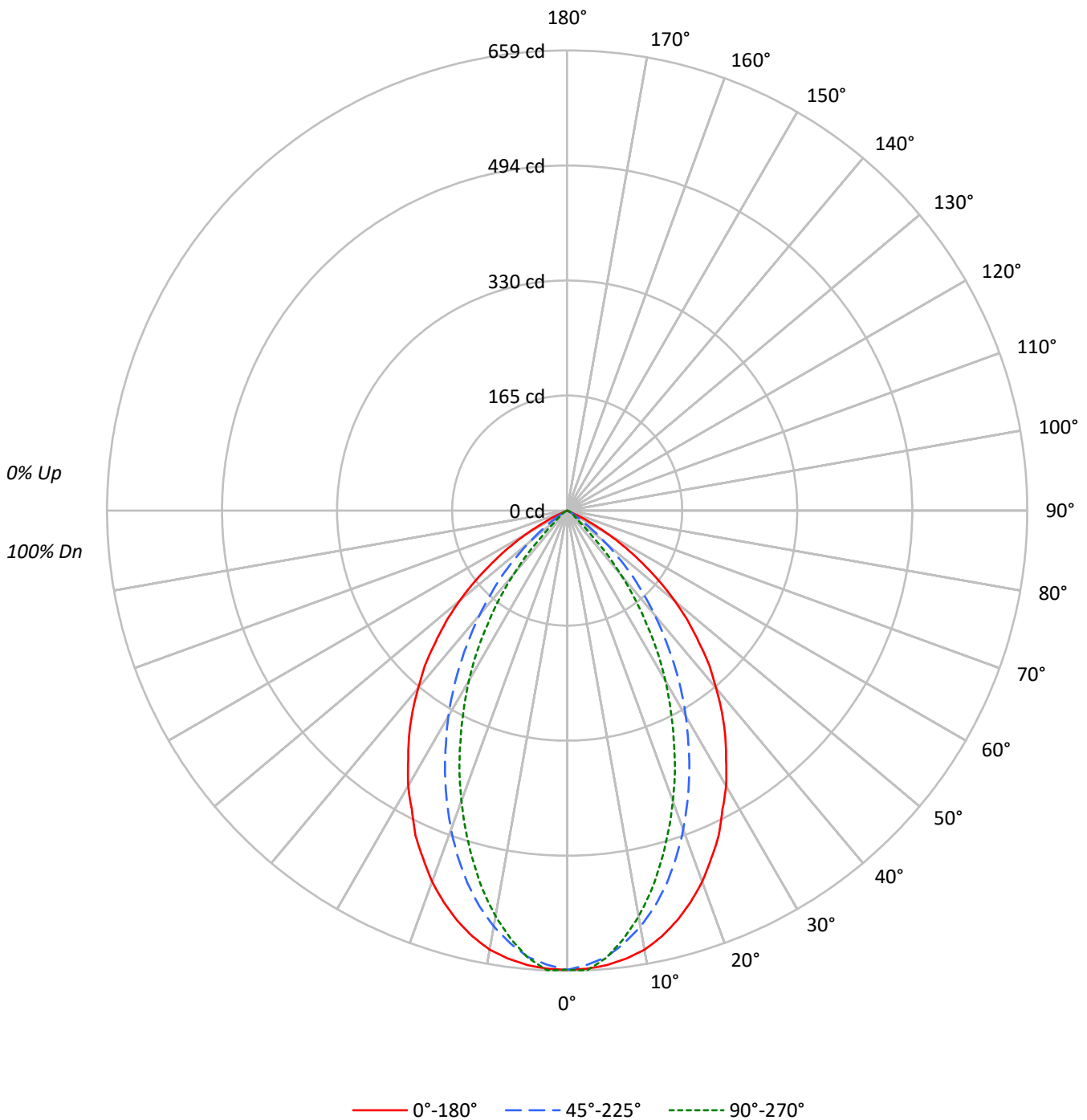
Lumens per Lamp: N/A
Luminaire Lumens: 750.5 lumens
Efficiency: N/A
Efficacy: 29.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7723	7723	7723
5°	7703	7565	7578
10°	7614	7210	7034
15°	7390	6708	6321
20°	7068	6074	5532
25°	6656	5365	4680
30°	6175	4610	3820
35°	5662	3810	2840
40°	5081	2988	1818
45°	4432	2180	756
50°	3676	1297	290
55°	2711	543	217
60°	1642	200	124
65°	442	117	58
70°	0	38	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4432 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	8.1
10°-20°	156.3	20.8
20°-30°	194.7	25.9
30°-40°	174.1	23.2
40°-50°	109.9	14.6
50°-60°	46.0	6.1
60°-70°	8.7	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	411.6	54.8
0°-40°	585.7	78.0
0°-60°	741.6	98.8
0°-90°	750.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	750.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	654	652	642	644	643	62
15°	608	593	552	528	520	171
25°	514	472	414	378	361	235
35°	395	338	266	218	198	246
45°	267	208	131	70	46	206
55°	132	91	26	11	11	119
65°	16	12	4	2	2	22
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	657.7	657.7	657.7	657.7	657.7
2.5°	656.6	657.7	651.3	657.7	658.8
5°	653.5	652.4	641.8	643.9	642.9
7.5°	647.1	643.9	624.9	620.6	618.5
10°	638.6	630.2	604.7	594.2	589.9
12.5°	624.9	613.2	580.4	563.4	557.1
15°	607.9	593.1	551.8	528.5	520.0
17.5°	587.8	566.6	520.0	494.6	481.9
20°	565.6	535.9	486.1	455.4	442.7
22.5°	539.1	506.3	450.1	417.3	403.5
25°	513.7	472.4	414.1	378.1	361.2
27.5°	481.9	438.5	376.0	338.9	320.9
30°	455.4	405.6	340.0	298.7	281.7
32.5°	423.6	371.7	302.9	257.4	241.5
35°	395.0	337.9	265.8	218.2	198.1
37.5°	364.3	305.0	228.8	179.0	159.9
40°	331.5	272.2	194.9	139.8	118.6
42.5°	301.8	239.4	161.0	103.8	82.6
45°	266.9	207.6	131.3	69.9	45.5
47.5°	235.1	177.9	99.6	39.2	24.4
50°	201.2	147.2	71.0	20.1	15.9
52.5°	166.3	117.6	46.6	13.8	12.7
55°	132.4	91.1	26.5	10.6	10.6
57.5°	99.6	65.7	13.8	8.5	7.4
60°	69.9	43.4	8.5	6.4	5.3
62.5°	40.2	25.4	6.4	4.2	4.2
65°	15.9	11.7	4.2	2.1	2.1
67.5°	1.1	3.2	2.1	1.1	1.1
70°	0.0	0.0	1.1	1.1	1.1
72.5°	0.0	0.0	1.1	1.1	1.1
75°	0.0	0.0	0.0	0.0	1.1
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.30	13.47	12.66	13.78	14.10	0.00	0.00	0.00	0.00	0.00
	3H	12.14	13.17	12.52	13.50	13.87	0.00	0.00	0.00	0.00	0.00
	4H	12.05	13.00	12.46	13.36	13.74	0.00	0.00	0.00	0.00	0.00
	6H	11.96	12.83	12.37	13.20	13.60	0.00	0.00	0.00	0.00	0.00
	8H	11.91	12.73	12.34	13.12	13.53	0.00	0.00	0.00	0.00	0.00
	12H	11.86	12.64	12.29	13.03	13.46	0.00	0.00	0.00	0.00	0.00
4H	2H	12.05	13.01	12.46	13.36	13.75	0.00	0.00	0.00	0.00	0.00
	3H	11.89	12.66	12.30	13.06	13.47	0.00	0.00	0.00	0.00	0.00
	4H	11.79	12.47	12.22	12.89	13.34	0.00	0.00	0.00	0.00	0.00
	6H	11.69	12.27	12.16	12.72	13.19	0.00	0.00	0.00	0.00	0.00
	8H	11.62	12.17	12.10	12.62	13.09	0.00	0.00	0.00	0.00	0.00
	12H	11.57	12.04	12.06	12.53	13.01	0.00	0.00	0.00	0.00	0.00
8H	4H	11.62	12.17	12.10	12.62	13.09	0.00	0.00	0.00	0.00	0.00
	6H	11.51	11.95	12.01	12.45	12.93	0.00	0.00	0.00	0.00	0.00
	8H	11.44	11.83	11.96	12.35	12.85	0.00	0.00	0.00	0.00	0.00
	12H	11.38	11.73	11.90	12.23	12.80	0.00	0.00	0.00	0.00	0.00
12H	4H	11.57	12.04	12.06	12.53	13.01	0.00	0.00	0.00	0.00	0.00
	6H	11.44	11.83	11.96	12.35	12.85	0.00	0.00	0.00	0.00	0.00
	8H	11.38	11.73	11.90	12.23	12.80	0.00	0.00	0.00	0.00	0.00