

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: P1059357

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059357
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-S775D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

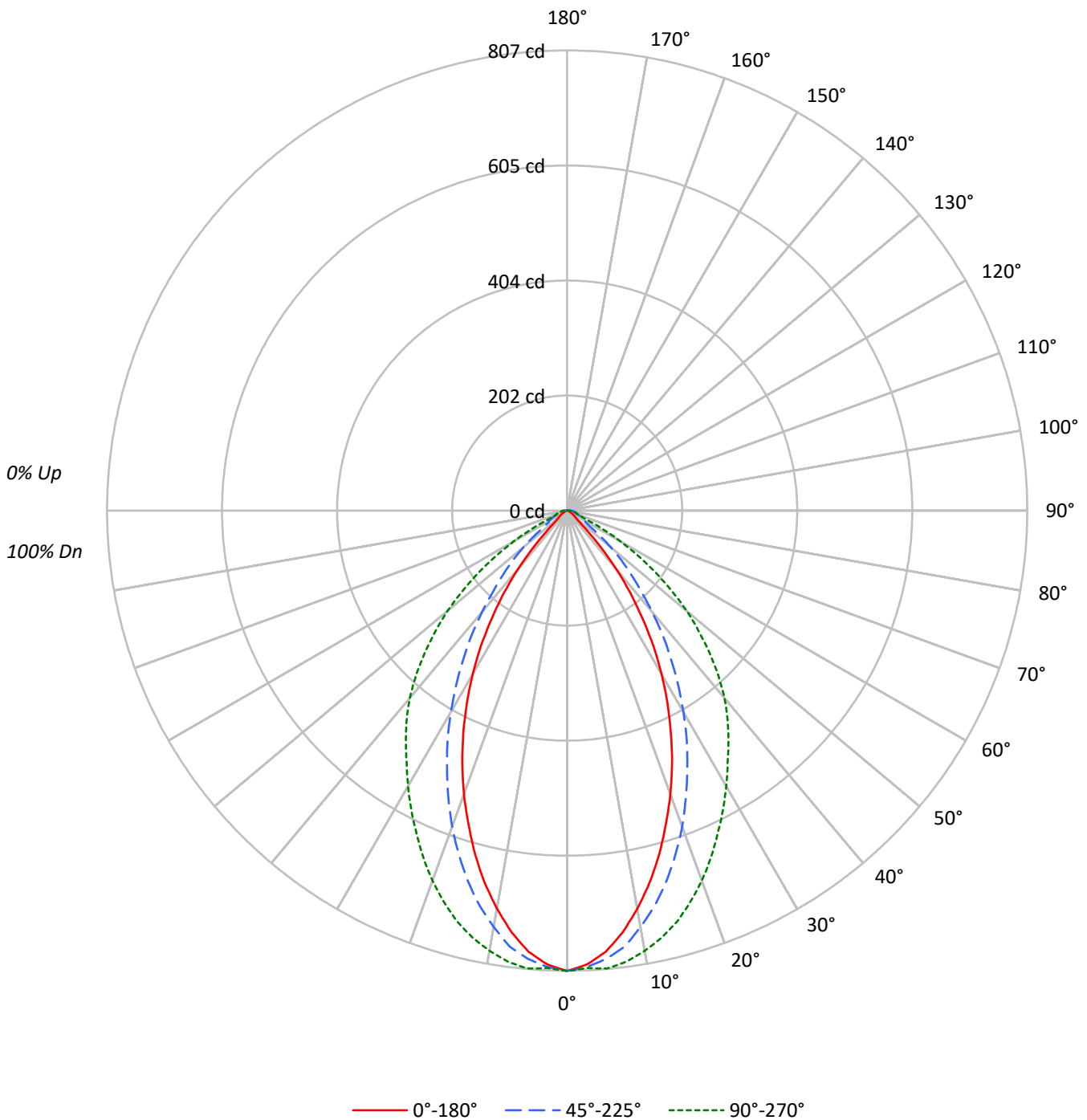
Lumens per Lamp: N/A
Luminaire Lumens: 969.2 lumens
Efficiency: N/A
Efficacy: 37.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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				
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°	9480	9480	9480
5°	9153	9303	9503
10°	8449	8841	9347
15°	7583	8177	9066
20°	6614	7370	8630
25°	5580	6460	8095
30°	4488	5524	7566
35°	3284	4547	7071
40°	2049	3546	6585
45°	776	2642	5867
50°	369	1821	5000
55°	283	999	3865
60°	200	848	2541
65°	147	736	1061
70°	144	694	694
75°	191	721	721
80°	284	859	791
85°	566	1428	1145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5867 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	7.6
10°-20°	190.0	19.6
20°-30°	235.2	24.3
30°-40°	210.9	21.8
40°-50°	138.3	14.3
50°-60°	69.2	7.1
60°-70°	27.0	2.8
70°-80°	15.2	1.6
80°-90°	9.4	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°	499.3	51.5
0°-40°	710.2	73.3
0°-60°	917.7	94.7
0°-90°	969.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	969.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	776	789	789	798	806	72
15°	624	649	673	717	746	174
25°	431	457	499	570	625	197
35°	229	260	317	413	493	143
45°	47	75	159	273	353	44
55°	14	17	49	134	189	13
65°	5	16	26	35	38	5
75°	4	16	16	16	16	4
85°	4	11	11	11	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	807.3	807.3	807.3	807.3	807.3
2.5°	796.7	808.3	800.9	802.0	803.0
5°	776.5	789.2	789.2	797.7	806.2
7.5°	745.8	760.6	771.2	786.1	797.7
10°	708.6	726.7	741.5	768.0	783.9
12.5°	668.3	690.6	709.7	744.7	767.0
15°	623.8	649.2	672.6	717.1	745.8
17.5°	576.0	601.5	632.2	684.2	719.2
20°	529.3	554.8	589.8	648.2	690.6
22.5°	480.5	507.1	544.2	608.9	658.8
25°	430.7	457.2	498.6	569.7	624.8
27.5°	380.8	407.4	454.0	531.5	591.9
30°	331.0	357.5	407.4	490.1	558.0
32.5°	281.1	309.8	361.7	451.9	524.0
35°	229.1	259.9	317.2	412.7	493.3
37.5°	181.4	210.0	274.8	378.7	462.5
40°	133.7	164.4	231.3	345.8	429.6
42.5°	87.0	119.9	192.0	309.8	392.5
45°	46.7	75.3	159.1	272.6	353.3
47.5°	25.5	41.4	128.4	233.4	312.9
50°	20.2	23.3	99.7	199.4	273.7
52.5°	17.0	19.1	71.1	167.6	230.2
55°	13.8	17.0	48.8	133.7	188.8
57.5°	11.7	14.9	38.2	104.0	147.5
60°	8.5	12.7	36.1	76.4	108.2
62.5°	6.4	13.8	31.8	53.0	71.1
65°	5.3	15.9	26.5	35.0	38.2
67.5°	4.2	17.0	23.3	22.3	22.3
70°	4.2	15.9	20.2	19.1	20.2
72.5°	4.2	17.0	18.0	17.0	18.0
75°	4.2	15.9	15.9	15.9	15.9
77.5°	4.2	14.9	14.9	13.8	13.8
80°	4.2	12.7	12.7	12.7	11.7
82.5°	4.2	11.7	11.7	11.7	9.5
85°	4.2	10.6	10.6	10.6	8.5
87.5°	3.2	9.5	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	0.19	1.45	0.56	1.76	2.07	14.42	15.68	14.79	15.99	16.30
	3H	2.51	3.62	2.89	3.95	4.31	14.50	15.61	14.88	15.94	16.31
	4H	3.60	4.64	4.01	4.99	5.37	14.58	15.61	14.98	15.96	16.35
	6H	4.59	5.54	5.00	5.91	6.30	14.68	15.63	15.10	16.00	16.40
	8H	5.06	5.96	5.50	6.35	6.76	14.74	15.64	15.17	16.03	16.44
	12H	5.62	6.47	6.05	6.86	7.29	14.82	15.68	15.25	16.06	16.49
4H	2H	3.42	4.46	3.83	4.81	5.19	14.28	15.31	14.68	15.66	16.05
	3H	5.74	6.58	6.15	6.99	7.39	14.45	15.30	14.87	15.70	16.11
	4H	7.11	7.86	7.54	8.28	8.73	14.60	15.36	15.04	15.78	16.22
	6H	8.19	8.84	8.66	9.29	9.76	14.83	15.48	15.29	15.93	16.40
	8H	8.65	9.26	9.12	9.70	10.18	14.95	15.56	15.42	16.01	16.48
	12H	9.14	9.67	9.62	10.16	10.63	15.13	15.66	15.61	16.15	16.62
8H	4H	8.08	8.69	8.55	9.14	9.61	14.60	15.21	15.07	15.66	16.13
	6H	9.60	10.10	10.11	10.60	11.08	14.94	15.44	15.44	15.93	16.42
	8H	10.38	10.83	10.90	11.34	11.83	15.17	15.62	15.69	16.13	16.63
	12H	11.18	11.58	11.69	12.07	12.64	15.50	15.90	16.02	16.40	16.97
12H	4H	8.26	8.80	8.75	9.28	9.76	14.58	15.12	15.07	15.61	16.08
	6H	9.92	10.37	10.44	10.88	11.38	14.96	15.41	15.48	15.92	16.41
	8H	10.87	11.27	11.39	11.77	12.34	15.27	15.66	15.78	16.16	16.73