

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: P1059807

Luminaire Tested: S123RDR-H775D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059807
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: S123RDR-H775D950-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

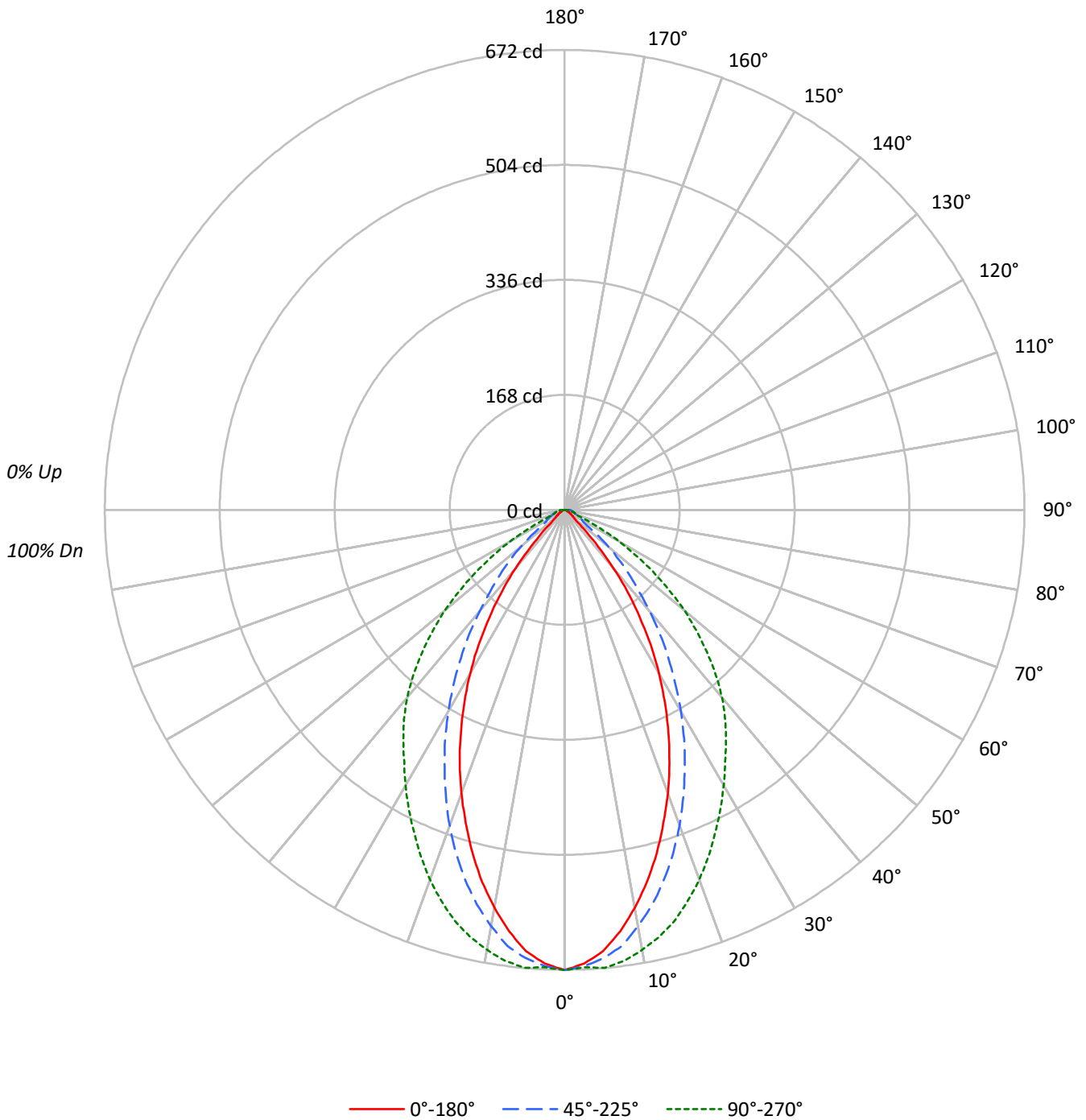
Lumens per Lamp: N/A
Luminaire Lumens: 807.4 lumens
Efficiency: N/A
Efficacy: 34.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	7897	7897	7897
5°	7625	7750	7916
10°	7038	7365	7786
15°	6317	6811	7552
20°	5511	6139	7189
25°	4649	5381	6744
30°	3738	4601	6302
35°	2737	3787	5890
40°	1706	2952	5486
45°	646	2202	4887
50°	307	1518	4165
55°	235	831	3220
60°	167	705	2116
65°	122	614	884
70°	120	577	577
75°	159	603	603
80°	237	717	656
85°	472	1186	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4887 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	7.6
10°-20°	158.3	19.6
20°-30°	195.9	24.3
30°-40°	175.7	21.8
40°-50°	115.2	14.3
50°-60°	57.6	7.1
60°-70°	22.5	2.8
70°-80°	12.7	1.6
80°-90°	7.8	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°	416.0	51.5
0°-40°	591.6	73.3
0°-60°	764.4	94.7
0°-90°	807.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	807.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	647	658	658	664	672	60
15°	520	541	560	597	621	145
25°	359	381	415	474	520	164
35°	191	216	264	344	411	119
45°	39	63	133	227	294	37
55°	12	14	41	111	157	11
65°	4	13	22	29	32	5
75°	4	13	13	13	13	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°	672.5	672.5	672.5	672.5	672.5
2.5°	663.6	673.4	667.2	668.1	669.0
5°	646.9	657.5	657.5	664.5	671.6
7.5°	621.2	633.6	642.4	654.8	664.5
10°	590.3	605.3	617.7	639.8	653.0
12.5°	556.7	575.3	591.2	620.3	638.9
15°	519.6	540.8	560.3	597.4	621.2
17.5°	479.8	501.0	526.7	570.0	599.1
20°	441.0	462.2	491.3	539.9	575.3
22.5°	400.3	422.4	453.3	507.2	548.8
25°	358.8	380.9	415.3	474.5	520.5
27.5°	317.2	339.3	378.2	442.7	493.1
30°	275.7	297.8	339.3	408.3	464.8
32.5°	234.2	258.0	301.3	376.5	436.5
35°	190.9	216.5	264.2	343.8	410.9
37.5°	151.1	175.0	228.9	315.5	385.3
40°	111.3	137.0	192.6	288.1	357.9
42.5°	72.5	99.9	159.9	258.0	327.0
45°	38.9	62.7	132.6	227.1	294.3
47.5°	21.2	34.5	106.9	194.4	260.7
50°	16.8	19.4	83.1	166.1	228.0
52.5°	14.1	15.9	59.2	139.6	191.8
55°	11.5	14.1	40.6	111.3	157.3
57.5°	9.7	12.4	31.8	86.6	122.8
60°	7.1	10.6	30.0	63.6	90.1
62.5°	5.3	11.5	26.5	44.2	59.2
65°	4.4	13.3	22.1	29.2	31.8
67.5°	3.5	14.1	19.4	18.6	18.6
70°	3.5	13.3	16.8	15.9	16.8
72.5°	3.5	14.1	15.0	14.1	15.0
75°	3.5	13.3	13.3	13.3	13.3
77.5°	3.5	12.4	12.4	11.5	11.5
80°	3.5	10.6	10.6	10.6	9.7
82.5°	3.5	9.7	9.7	9.7	8.0
85°	3.5	8.8	8.8	8.8	7.1
87.5°	2.7	8.0	8.8	8.0	5.3
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	0.80	0.00	1.12	1.43	13.78	15.04	14.15	15.35	15.67
	3H	1.87	2.98	2.25	3.31	3.67	13.86	14.98	14.25	15.31	15.67
	4H	2.97	4.00	3.37	4.35	4.74	13.94	14.98	14.35	15.33	15.71
	6H	3.95	4.90	4.37	5.27	5.67	14.05	15.00	14.46	15.37	15.76
	8H	4.43	5.33	4.86	5.72	6.12	14.11	15.00	14.54	15.39	15.80
	12H	4.98	5.84	5.41	6.22	6.65	14.19	15.05	14.62	15.43	15.86
4H	2H	2.79	3.82	3.20	4.18	4.56	13.64	14.67	14.04	15.02	15.41
	3H	5.10	5.95	5.52	6.35	6.76	13.81	14.66	14.23	15.06	15.47
	4H	6.48	7.23	6.91	7.65	8.10	13.97	14.72	14.40	15.14	15.59
	6H	7.56	8.21	8.03	8.66	9.13	14.19	14.84	14.66	15.29	15.76
	8H	8.01	8.62	8.48	9.07	9.54	14.32	14.93	14.79	15.37	15.85
	12H	8.50	9.04	8.99	9.52	10.00	14.49	15.03	14.98	15.51	15.99
8H	4H	7.46	8.07	7.93	8.51	8.98	13.96	14.57	14.43	15.02	15.49
	6H	8.97	9.47	9.48	9.97	10.45	14.30	14.80	14.80	15.30	15.78
	8H	9.74	10.19	10.26	10.71	11.20	14.53	14.98	15.06	15.50	15.99
	12H	10.54	10.94	11.05	11.43	12.00	14.87	15.27	15.38	15.76	16.33
12H	4H	7.63	8.17	8.12	8.65	9.13	13.95	14.49	14.44	14.97	15.45
	6H	9.29	9.74	9.81	10.25	10.74	14.32	14.77	14.84	15.29	15.78
	8H	10.24	10.63	10.75	11.13	11.70	14.63	15.03	15.15	15.52	16.10