

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: P1059808

Luminaire Tested: S123RDR-H775D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059808
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-H775D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

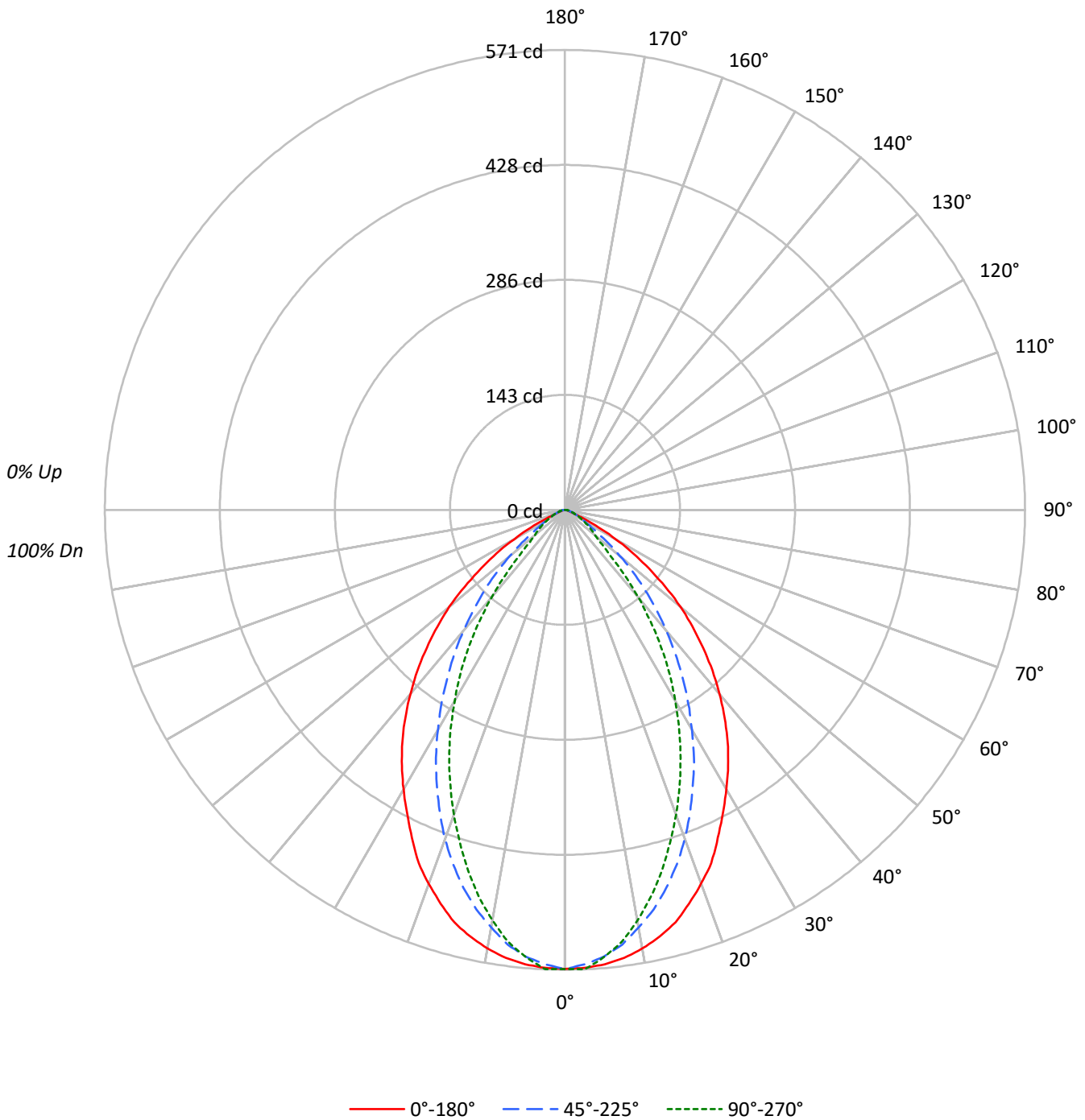
Lumens per Lamp: N/A
Luminaire Lumens: 735.9 lumens
Efficiency: N/A
Efficacy: 31.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	70	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	48	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°	6693	6693	6693
5°	6677	6562	6573
10°	6596	6280	6175
15°	6447	5911	5642
20°	6174	5436	5038
25°	5819	4870	4401
30°	5432	4271	3708
35°	5046	3642	2985
40°	4571	3003	2164
45°	4029	2330	1304
50°	3418	1628	886
55°	2602	974	741
60°	1700	622	580
65°	711	467	467
70°	244	333	364
75°	200	240	281
80°	122	176	237
85°	121	121	243

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4029 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	7.2
10°-20°	137.8	18.7
20°-30°	176.7	24.0
30°-40°	165.8	22.5
40°-50°	115.7	15.7
50°-60°	59.8	8.1
60°-70°	20.5	2.8
70°-80°	5.8	0.8
80°-90°	1.2	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°	367.1	49.9
0°-40°	532.9	72.4
0°-60°	708.3	96.3
0°-90°	735.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	735.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	566	566	557	559	558	54
15°	530	517	486	470	464	149
25°	449	421	376	350	340	206
35°	352	309	254	222	208	219
45°	243	198	140	97	78	187
55°	127	95	48	37	36	114
65°	26	22	17	16	17	30
75°	4	4	5	6	6	4
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°	570.0	570.0	570.0	570.0	570.0
2.5°	569.1	570.0	564.7	570.0	570.9
5°	566.5	565.6	556.7	559.4	557.6
7.5°	561.2	558.5	544.4	540.9	540.9
10°	553.2	547.9	526.7	520.6	517.9
12.5°	542.6	535.6	508.2	496.7	492.3
15°	530.3	517.0	486.2	470.3	464.1
17.5°	512.6	495.0	461.5	442.9	433.2
20°	494.1	472.0	435.0	412.9	403.2
22.5°	474.7	448.2	405.9	382.0	371.5
25°	449.1	420.9	375.9	350.3	339.7
27.5°	424.4	394.4	346.8	317.6	307.0
30°	400.6	365.3	315.0	286.8	273.5
32.5°	376.8	337.0	285.0	254.1	241.8
35°	352.0	308.8	254.1	221.5	208.2
37.5°	325.6	281.5	225.0	189.7	173.8
40°	298.2	252.3	195.9	156.2	141.2
42.5°	270.9	225.9	166.8	126.2	108.5
45°	242.6	198.5	140.3	97.1	78.5
47.5°	214.4	171.2	114.7	70.6	59.1
50°	187.1	145.6	89.1	52.1	48.5
52.5°	157.1	120.9	67.1	43.2	42.4
55°	127.1	95.3	47.6	37.1	36.2
57.5°	100.6	74.1	34.4	30.9	30.0
60°	72.4	52.9	26.5	25.6	24.7
62.5°	47.6	36.2	21.2	20.3	20.3
65°	25.6	22.1	16.8	15.9	16.8
67.5°	10.6	12.4	12.4	13.2	13.2
70°	7.1	7.9	9.7	10.6	10.6
72.5°	5.3	6.2	7.1	7.9	7.9
75°	4.4	4.4	5.3	6.2	6.2
77.5°	2.6	3.5	3.5	4.4	5.3
80°	1.8	2.6	2.6	3.5	3.5
82.5°	0.9	1.8	1.8	2.6	2.6
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	12.94	14.20	13.30	14.51	14.82	6.45	7.71	6.81	8.02	8.33
	3H	12.89	14.00	13.27	14.33	14.69	7.22	8.33	7.60	8.66	9.02
	4H	12.84	13.87	13.24	14.22	14.60	7.42	8.45	7.82	8.80	9.19
	6H	12.77	13.71	13.18	14.08	14.48	7.56	8.51	7.98	8.88	9.27
	8H	12.72	13.62	13.16	14.01	14.41	7.60	8.49	8.03	8.88	9.29
	12H	12.68	13.53	13.11	13.92	14.35	7.61	8.47	8.05	8.85	9.28
4H	2H	12.78	13.81	13.19	14.16	14.55	6.70	7.73	7.11	8.09	8.47
	3H	12.77	13.60	13.18	14.01	14.41	7.61	8.44	8.02	8.85	9.25
	4H	12.72	13.46	13.15	13.88	14.32	7.88	8.63	8.32	9.05	9.49
	6H	12.66	13.30	13.12	13.74	14.21	8.10	8.73	8.56	9.18	9.65
	8H	12.61	13.20	13.08	13.65	14.12	8.15	8.75	8.63	9.20	9.67
	12H	12.56	13.09	13.05	13.57	14.05	8.19	8.72	8.68	9.20	9.68
8H	4H	12.60	13.20	13.07	13.65	14.12	7.87	8.46	8.34	8.91	9.38
	6H	12.54	13.02	13.04	13.52	14.00	8.13	8.61	8.64	9.11	9.60
	8H	12.49	12.93	13.01	13.44	13.94	8.23	8.67	8.76	9.19	9.68
	12H	12.45	12.84	12.97	13.33	13.91	8.31	8.69	8.82	9.19	9.76
12H	4H	12.56	13.08	13.05	13.57	14.04	7.83	8.35	8.32	8.84	9.31
	6H	12.48	12.92	13.01	13.43	13.93	8.09	8.53	8.62	9.04	9.54
	8H	12.45	12.84	12.97	13.33	13.91	8.23	8.61	8.74	9.11	9.68