

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: P1060710

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

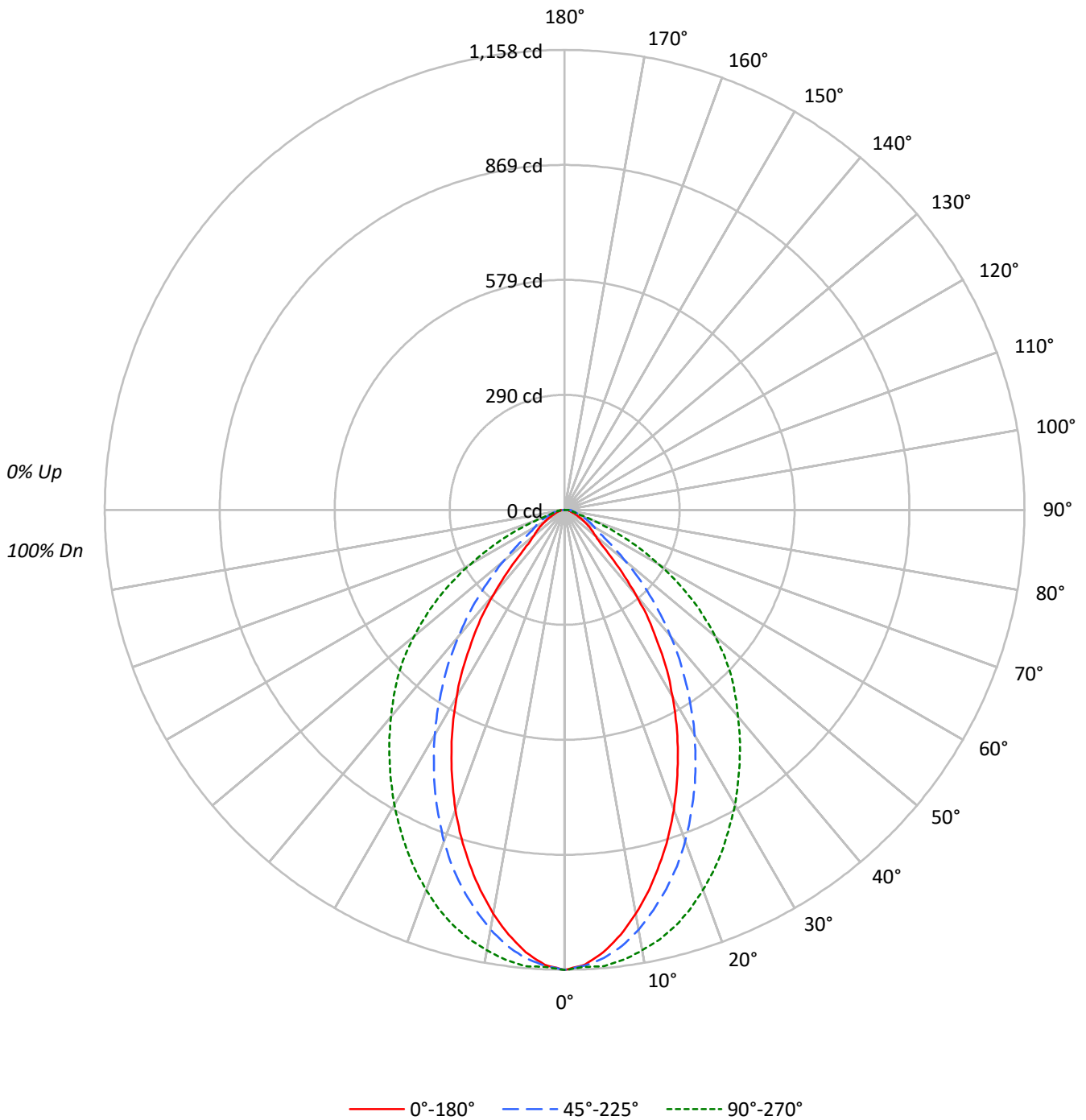
Lumens per Lamp: N/A
Luminaire Lumens: 1639.4 lumens
Efficiency: N/A
Efficacy: 44.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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			100	
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79	
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70	
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63			63	
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57			57	
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51			51	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43	
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9974	9974	9974
5°	9666	9788	9967
10°	9030	9381	9845
15°	8237	8814	9657
20°	7365	8136	9333
25°	6407	7353	8951
30°	5404	6511	8531
35°	4300	5605	8081
40°	3127	4670	7637
45°	1891	3687	7234
50°	1352	2670	6623
55°	1147	1808	5848
60°	937	1471	4726
65°	738	1318	3401
70°	619	1108	1793
75°	559	1035	905
80°	575	1027	898
85°	771	1531	1028

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7234 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	6.5
10°-20°	279.4	17.0
20°-30°	362.4	22.1
30°-40°	348.9	21.3
40°-50°	259.5	15.8
50°-60°	159.6	9.7
60°-70°	78.4	4.8
70°-80°	30.6	1.9
80°-90°	13.9	0.8
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°	748.5	45.7
0°-40°	1097.3	66.9
0°-60°	1516.5	92.5
0°-90°	1639.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1639.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1118	1135	1132	1143	1153	104
15°	924	954	989	1048	1083	258
25°	674	710	774	871	942	309
35°	409	448	533	666	769	256
45°	155	193	303	467	594	129
55°	76	79	120	274	390	69
65°	36	39	65	104	167	37
75°	17	30	31	28	27	18
85°	8	14	16	16	10	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1158.3	1158.3	1158.3	1158.3	1158.3
2.5°	1146.6	1159.6	1149.2	1150.5	1151.8
5°	1118.2	1135.0	1132.4	1142.7	1153.1
7.5°	1079.3	1098.7	1107.8	1128.5	1142.7
10°	1032.7	1054.7	1072.9	1106.5	1125.9
12.5°	981.0	1006.9	1032.7	1078.0	1107.8
15°	924.0	953.8	988.7	1048.3	1083.2
17.5°	865.8	895.6	940.9	1009.4	1053.4
20°	803.7	836.0	887.8	964.1	1018.5
22.5°	739.0	773.9	830.8	917.6	982.3
25°	674.3	710.5	773.9	871.0	942.1
27.5°	609.5	644.5	713.1	821.8	899.4
30°	543.5	579.8	654.8	768.7	858.0
32.5°	480.1	513.8	594.0	718.3	812.7
35°	409.0	447.8	533.2	666.5	768.7
37.5°	348.1	383.1	475.0	614.7	724.7
40°	278.2	317.1	415.4	564.3	679.4
42.5°	213.5	252.4	358.5	513.8	636.7
45°	155.3	192.8	302.8	467.2	594.0
47.5°	117.8	139.8	248.5	421.9	546.1
50°	100.9	107.4	199.3	372.7	494.4
52.5°	89.3	91.9	155.3	323.5	442.6
55°	76.4	78.9	120.4	274.4	389.5
57.5°	64.7	66.0	97.1	227.8	332.6
60°	54.4	55.6	85.4	182.5	274.4
62.5°	45.3	46.6	76.4	141.1	218.7
65°	36.2	38.8	64.7	103.5	166.9
67.5°	29.8	34.9	54.4	72.5	116.5
70°	24.6	33.6	44.0	50.5	71.2
72.5°	20.7	31.1	37.5	36.2	34.9
75°	16.8	29.8	31.1	28.5	27.2
77.5°	14.2	25.9	25.9	23.3	22.0
80°	11.6	20.7	20.7	20.7	18.1
82.5°	10.4	16.8	18.1	18.1	14.2
85°	7.8	14.2	15.5	15.5	10.4
87.5°	5.2	12.9	14.2	12.9	7.8
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	7.77	9.12	8.14	9.43	9.74	16.94	18.29	17.31	18.60	18.91
	3H	8.89	10.08	9.27	10.41	10.77	17.45	18.64	17.83	18.97	19.34
	4H	9.40	10.51	9.81	10.86	11.25	17.47	18.58	17.87	18.93	19.31
	6H	9.84	10.86	10.25	11.23	11.62	17.48	18.50	17.90	18.87	19.27
	8H	10.03	10.99	10.46	11.38	11.79	17.49	18.45	17.92	18.84	19.25
	12H	10.21	11.13	10.64	11.52	11.95	17.49	18.41	17.92	18.80	19.23
4H	2H	8.92	10.03	9.32	10.38	10.76	16.84	17.95	17.24	18.30	18.68
	3H	10.26	11.17	10.67	11.57	11.98	17.43	18.33	17.84	18.74	19.14
	4H	11.00	11.81	11.43	12.23	12.67	17.48	18.30	17.92	18.72	19.16
	6H	11.60	12.31	12.07	12.75	13.22	17.56	18.26	18.02	18.71	19.17
	8H	11.85	12.50	12.32	12.95	13.42	17.59	18.25	18.06	18.69	19.16
	12H	12.08	12.67	12.57	13.15	13.62	17.63	18.21	18.12	18.69	19.17
8H	4H	11.46	12.12	11.93	12.57	13.04	17.44	18.10	17.91	18.55	19.02
	6H	12.31	12.85	12.81	13.35	13.83	17.57	18.11	18.07	18.60	19.08
	8H	12.72	13.20	13.24	13.72	14.21	17.65	18.14	18.17	18.65	19.14
	12H	13.14	13.57	13.66	14.06	14.63	17.77	18.20	18.29	18.70	19.27
12H	4H	11.52	12.10	12.00	12.58	13.05	17.42	18.00	17.90	18.48	18.95
	6H	12.44	12.93	12.96	13.44	13.93	17.55	18.04	18.07	18.55	19.04
	8H	12.97	13.39	13.48	13.89	14.46	17.68	18.11	18.20	18.61	19.18