

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: P1059567

Luminaire Tested: S123RDR-H1165D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059567
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D950-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE 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

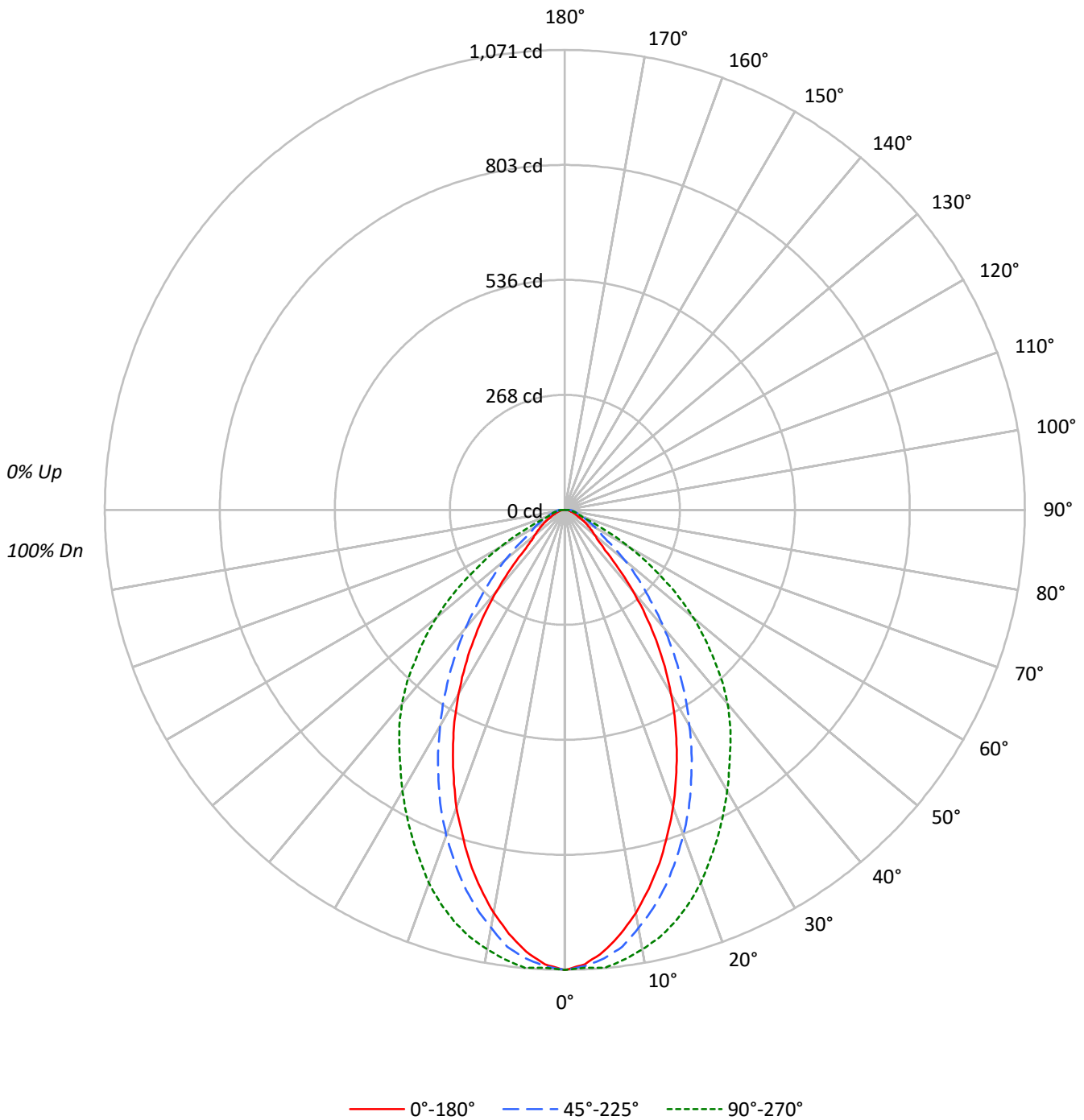
Lumens per Lamp: N/A
Luminaire Lumens: 1438.3 lumens
Efficiency: N/A
Efficacy: 39.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12581	12581	12581
5°	12174	12363	12614
10°	11363	11791	12395
15°	10355	11019	12070
20°	9215	10079	11559
25°	7984	9019	10899
30°	6695	7868	10251
35°	5304	6697	9634
40°	3754	5509	9038
45°	2210	4354	8134
50°	1653	3307	7125
55°	1390	2234	5722
60°	1125	1907	4063
65°	886	1628	2145
70°	776	1418	1325
75°	726	1329	1270
80°	717	1440	1258
85°	903	2156	1617

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8134 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	6.9
10°-20°	256.3	17.8
20°-30°	326.4	22.7
30°-40°	307.0	21.3
40°-50°	221.1	15.4
50°-60°	127.7	8.9
60°-70°	58.4	4.1
70°-80°	29.2	2.0
80°-90°	13.8	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°	681.2	47.4
0°-40°	988.2	68.7
0°-60°	1337.0	93.0
0°-90°	1438.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1438.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1033	1050	1049	1060	1070	96
15°	852	882	906	957	993	237
25°	616	648	696	773	841	282
35°	370	402	467	575	672	230
45°	133	166	262	394	490	112
55°	68	70	109	208	280	61
65°	32	45	59	65	77	33
75°	16	31	29	28	28	17
85°	7	15	16	15	12	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1071.4	1071.4	1071.4	1071.4	1071.4
2.5°	1059.5	1072.8	1063.5	1064.8	1067.5
5°	1032.8	1050.1	1048.8	1059.5	1070.1
7.5°	995.6	1015.5	1026.2	1042.2	1056.8
10°	953.0	975.6	988.9	1018.2	1039.5
12.5°	903.7	933.0	950.3	988.9	1019.5
15°	851.8	882.4	906.4	957.0	992.9
17.5°	793.3	826.5	857.2	917.0	961.0
20°	737.4	769.3	806.6	871.8	925.0
22.5°	676.1	710.7	753.3	822.5	882.4
25°	616.2	648.2	696.1	773.3	841.2
27.5°	556.4	588.3	638.9	724.1	798.6
30°	493.8	527.1	580.3	674.8	756.0
32.5°	432.6	464.5	524.4	626.9	712.1
35°	370.0	402.0	467.2	575.0	672.1
37.5°	308.8	342.1	411.3	532.4	632.2
40°	244.9	280.8	359.4	488.5	589.6
42.5°	185.0	223.6	307.5	443.2	543.0
45°	133.1	166.4	262.2	394.0	489.8
47.5°	103.8	121.1	220.9	343.4	440.6
50°	90.5	93.2	181.0	296.8	390.0
52.5°	78.5	81.2	142.4	252.9	336.7
55°	67.9	70.5	109.1	207.6	279.5
57.5°	57.2	61.2	90.5	165.0	224.9
60°	47.9	53.2	81.2	126.4	173.0
62.5°	38.6	47.9	69.2	93.2	123.8
65°	31.9	45.3	58.6	65.2	77.2
67.5°	26.6	41.3	49.2	46.6	45.3
70°	22.6	37.3	41.3	37.3	38.6
72.5°	18.6	34.6	34.6	31.9	31.9
75°	16.0	30.6	29.3	28.0	28.0
77.5°	13.3	26.6	25.3	24.0	22.6
80°	10.6	21.3	21.3	20.0	18.6
82.5°	9.3	17.3	17.3	17.3	14.6
85°	6.7	14.6	16.0	14.6	12.0
87.5°	5.3	13.3	13.3	12.0	8.0
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	8.77	10.08	9.13	10.40	10.71	16.13	17.45	16.49	17.76	18.08
	3H	10.16	11.33	10.54	11.66	12.02	16.36	17.53	16.74	17.86	18.23
	4H	10.71	11.80	11.11	12.15	12.53	16.48	17.57	16.88	17.92	18.30
	6H	11.14	12.14	11.56	12.51	12.91	16.59	17.59	17.00	17.96	18.36
	8H	11.32	12.27	11.75	12.66	13.06	16.64	17.59	17.07	17.98	18.39
	12H	11.47	12.38	11.91	12.77	13.20	16.70	17.61	17.13	17.99	18.42
4H	2H	9.87	10.96	10.27	11.31	11.69	16.09	17.18	16.49	17.53	17.91
	3H	11.53	12.42	11.94	12.83	13.23	16.45	17.34	16.86	17.75	18.15
	4H	12.34	13.14	12.78	13.56	14.00	16.65	17.45	17.08	17.87	18.31
	6H	12.98	13.67	13.44	14.11	14.58	16.87	17.57	17.34	18.01	18.48
	8H	13.21	13.86	13.68	14.30	14.77	16.98	17.62	17.45	18.07	18.54
	12H	13.42	14.00	13.91	14.48	14.95	17.11	17.68	17.59	18.16	18.63
8H	4H	12.78	13.43	13.25	13.88	14.35	16.68	17.33	17.15	17.78	18.25
	6H	13.69	14.22	14.20	14.72	15.20	17.01	17.54	17.51	18.04	18.52
	8H	14.11	14.59	14.63	15.10	15.60	17.20	17.68	17.72	18.19	18.69
	12H	14.53	14.95	15.04	15.45	16.02	17.45	17.87	17.97	18.37	18.94
12H	4H	12.84	13.41	13.33	13.90	14.37	16.67	17.25	17.16	17.73	18.20
	6H	13.83	14.30	14.35	14.82	15.31	17.03	17.51	17.55	18.02	18.51
	8H	14.37	14.79	14.88	15.28	15.85	17.28	17.71	17.80	18.20	18.77