

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: P1059162

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059162
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: S123RDRP-S1165D950-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

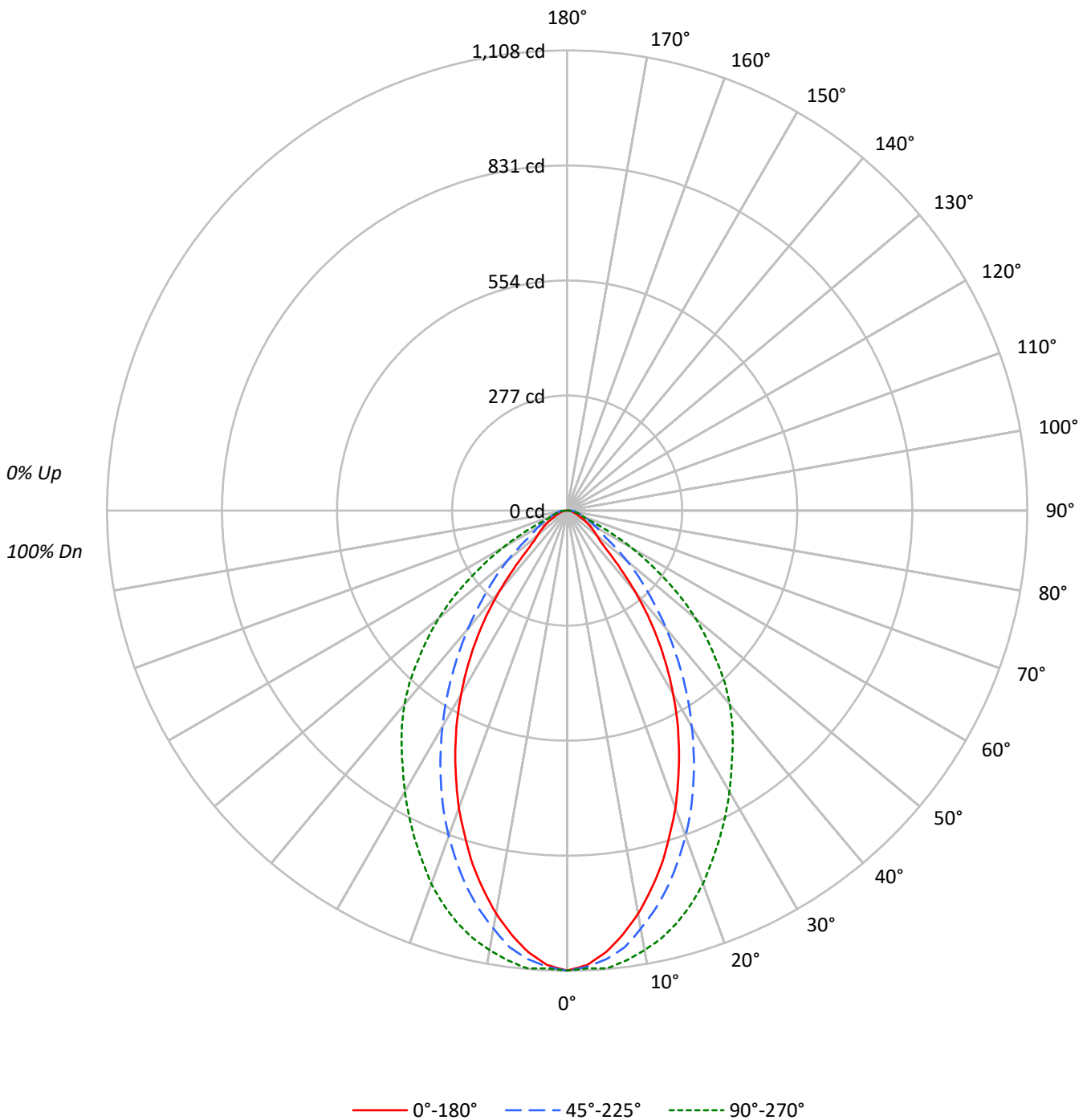
Lumens per Lamp: N/A
Luminaire Lumens: 1486.9 lumens
Efficiency: N/A
Efficacy: 35.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13006	13006	13006
5°	12585	12780	13040
10°	11747	12189	12813
15°	10705	11391	12478
20°	9526	10419	11950
25°	8254	9323	11267
30°	6922	8134	10596
35°	5483	6924	9960
40°	3881	5695	9343
45°	2285	4502	8408
50°	1710	3418	7364
55°	1437	2309	5914
60°	1163	1970	4201
65°	917	1681	2217
70°	803	1466	1370
75°	749	1375	1311
80°	744	1488	1305
85°	930	2223	1671

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8408 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.9	6.9
10°-20°	264.9	17.8
20°-30°	337.4	22.7
30°-40°	317.4	21.3
40°-50°	228.6	15.4
50°-60°	132.0	8.9
60°-70°	60.4	4.1
70°-80°	30.1	2.0
80°-90°	14.2	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°	704.2	47.4
0°-40°	1021.6	68.7
0°-60°	1382.2	93.0
0°-90°	1486.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1486.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1068	1086	1084	1095	1106	99
15°	881	912	937	989	1026	245
25°	637	670	720	799	870	291
35°	382	416	483	594	695	237
45°	138	172	271	407	506	116
55°	70	73	113	215	289	63
65°	33	47	60	67	80	34
75°	16	32	30	29	29	18
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°	1107.6	1107.6	1107.6	1107.6	1107.6
2.5°	1095.2	1109.0	1099.4	1100.7	1103.5
5°	1067.7	1085.6	1084.2	1095.2	1106.3
7.5°	1029.2	1049.8	1060.8	1077.4	1092.5
10°	985.2	1008.6	1022.3	1052.6	1074.6
12.5°	934.3	964.5	982.4	1022.3	1054.0
15°	880.6	912.2	937.0	989.3	1026.4
17.5°	820.1	854.5	886.1	948.0	993.4
20°	762.3	795.3	833.8	901.2	956.3
22.5°	699.0	734.8	778.8	850.3	912.2
25°	637.1	670.1	719.6	799.4	869.6
27.5°	575.1	608.2	660.4	748.5	825.6
30°	510.5	544.9	599.9	697.6	781.5
32.5°	447.2	480.2	542.1	648.1	736.1
35°	382.5	415.5	483.0	594.4	694.8
37.5°	319.2	353.6	425.2	550.4	653.6
40°	253.2	290.3	371.5	505.0	609.5
42.5°	191.3	231.2	317.8	458.2	561.4
45°	137.6	172.0	271.1	407.3	506.3
47.5°	107.3	125.2	228.4	355.0	455.4
50°	93.6	96.3	187.1	306.8	403.1
52.5°	81.2	83.9	147.2	261.4	348.1
55°	70.2	72.9	112.8	214.6	288.9
57.5°	59.2	63.3	93.6	170.6	232.5
60°	49.5	55.0	83.9	130.7	178.9
62.5°	39.9	49.5	71.5	96.3	128.0
65°	33.0	46.8	60.5	67.4	79.8
67.5°	27.5	42.7	50.9	48.2	46.8
70°	23.4	38.5	42.7	38.5	39.9
72.5°	19.3	35.8	35.8	33.0	33.0
75°	16.5	31.6	30.3	28.9	28.9
77.5°	13.8	27.5	26.1	24.8	23.4
80°	11.0	22.0	22.0	20.6	19.3
82.5°	9.6	17.9	17.9	17.9	15.1
85°	6.9	15.1	16.5	15.1	12.4
87.5°	5.5	13.8	13.8	12.4	8.3
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	8.88	10.20	9.25	10.52	10.83	16.25	17.56	16.61	17.88	18.19
	3H	10.27	11.44	10.65	11.77	12.14	16.48	17.65	16.86	17.98	18.34
	4H	10.83	11.92	11.23	12.27	12.65	16.59	17.68	16.99	18.03	18.42
	6H	11.26	12.26	11.68	12.63	13.03	16.71	17.71	17.12	18.08	18.47
	8H	11.44	12.39	11.87	12.78	13.18	16.76	17.71	17.19	18.10	18.50
	12H	11.59	12.50	12.02	12.88	13.31	16.82	17.73	17.25	18.11	18.54
4H	2H	9.98	11.07	10.39	11.42	11.81	16.20	17.29	16.61	17.65	18.03
	3H	11.65	12.54	12.06	12.94	13.35	16.56	17.46	16.98	17.86	18.26
	4H	12.46	13.25	12.89	13.67	14.12	16.76	17.56	17.20	17.98	18.42
	6H	13.09	13.78	13.55	14.23	14.69	16.99	17.68	17.45	18.13	18.59
	8H	13.33	13.97	13.79	14.42	14.89	17.09	17.74	17.56	18.19	18.66
	12H	13.54	14.11	14.02	14.59	15.07	17.22	17.79	17.71	18.28	18.75
8H	4H	12.90	13.54	13.37	13.99	14.46	16.80	17.45	17.27	17.89	18.36
	6H	13.81	14.34	14.31	14.83	15.32	17.13	17.66	17.63	18.15	18.63
	8H	14.23	14.70	14.75	15.22	15.71	17.32	17.79	17.84	18.31	18.80
	12H	14.64	15.07	15.16	15.56	16.13	17.57	17.99	18.08	18.48	19.05
12H	4H	12.95	13.53	13.44	14.01	14.48	16.79	17.36	17.27	17.84	18.32
	6H	13.94	14.42	14.46	14.93	15.43	17.14	17.62	17.66	18.14	18.63
	8H	14.48	14.90	15.00	15.40	15.97	17.40	17.82	17.91	18.32	18.89