

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: P1059117

Luminaire Tested: S123RDRP-S1165D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059117
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-S1165D850-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, 80 CRI LEDS
Ballast/Driver: -

Summary

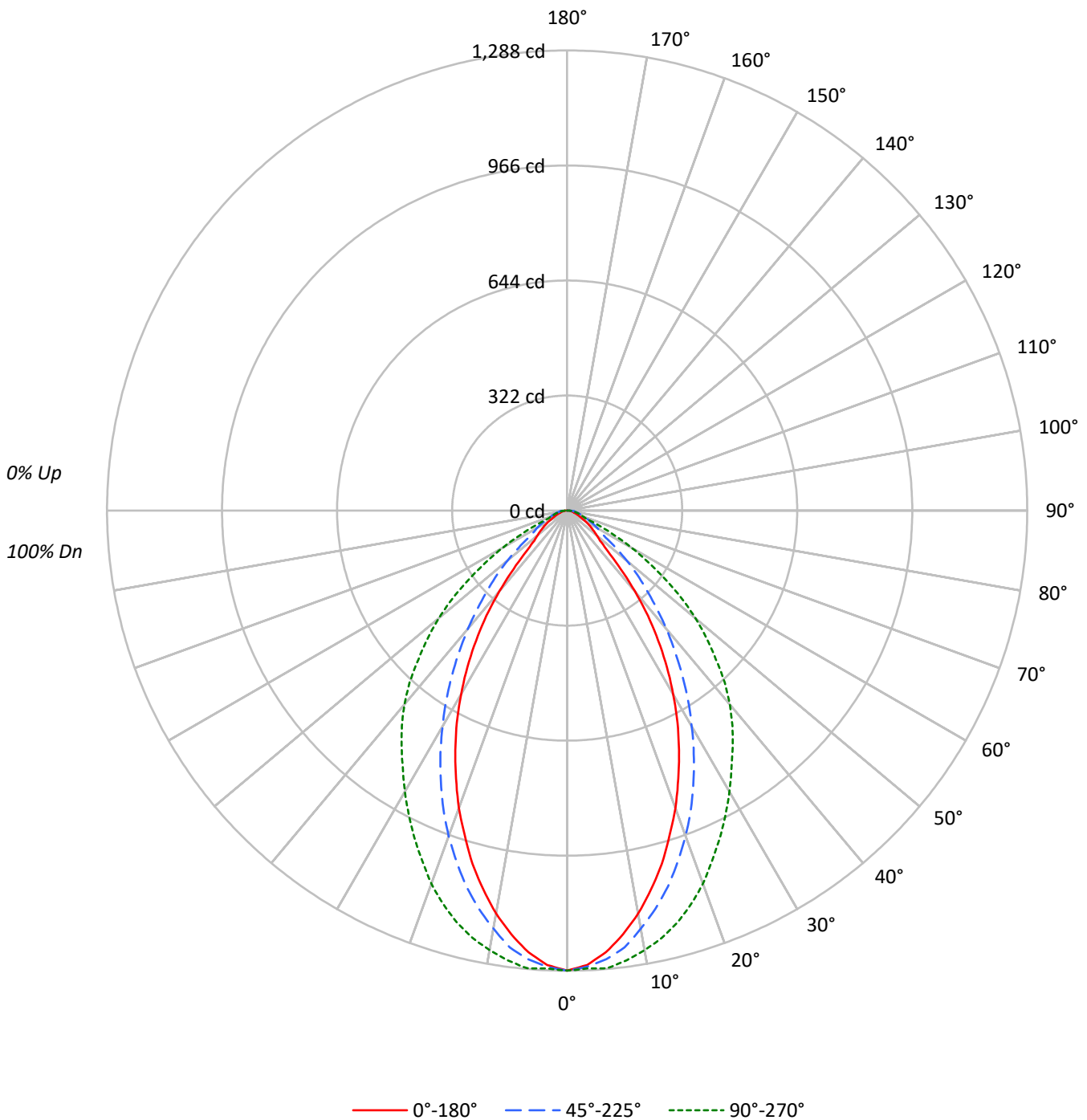
Lumens per Lamp: N/A
Luminaire Lumens: 1728.5 lumens
Efficiency: N/A
Efficacy: 41.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	15120	15120	15120
5°	14630	14857	15158
10°	13655	14170	14895
15°	12445	13242	14505
20°	11073	12112	13891
25°	9595	10838	13098
30°	8046	9456	12318
35°	6375	8048	11578
40°	4511	6620	10862
45°	2655	5233	9774
50°	1988	3973	8562
55°	1671	2686	6877
60°	1353	2292	4883
65°	1067	1956	2578
70°	934	1703	1593
75°	871	1597	1524
80°	866	1731	1515
85°	1078	2587	1940

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.5	6.9
10°-20°	308.0	17.8
20°-30°	392.2	22.7
30°-40°	368.9	21.3
40°-50°	265.7	15.4
50°-60°	153.5	8.9
60°-70°	70.2	4.1
70°-80°	35.0	2.0
80°-90°	16.6	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°	818.7	47.4
0°-40°	1187.6	68.7
0°-60°	1606.7	93.0
0°-90°	1728.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1728.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1241	1262	1260	1273	1286	115
15°	1024	1060	1089	1150	1193	285
25°	741	779	836	929	1011	339
35°	445	483	561	691	808	276
45°	160	200	315	473	589	135
55°	82	85	131	250	336	73
65°	38	54	70	78	93	39
75°	19	37	35	34	34	20
85°	8	18	19	18	14	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1287.6	1287.6	1287.6	1287.6	1287.6
2.5°	1273.2	1289.2	1278.0	1279.6	1282.8
5°	1241.2	1262.0	1260.4	1273.2	1286.0
7.5°	1196.4	1220.4	1233.2	1252.4	1270.0
10°	1145.2	1172.4	1188.4	1223.6	1249.2
12.5°	1086.1	1121.2	1142.0	1188.4	1225.2
15°	1023.7	1060.5	1089.3	1150.0	1193.2
17.5°	953.3	993.3	1030.1	1102.0	1154.8
20°	886.1	924.5	969.3	1047.7	1111.6
22.5°	812.5	854.1	905.3	988.5	1060.5
25°	740.6	779.0	836.5	929.3	1010.9
27.5°	668.6	707.0	767.8	870.1	959.7
30°	593.4	633.4	697.4	810.9	908.5
32.5°	519.8	558.2	630.2	753.4	855.7
35°	444.7	483.0	561.4	691.0	807.7
37.5°	371.1	411.1	494.2	639.8	759.8
40°	294.3	337.5	431.9	587.0	708.6
42.5°	222.3	268.7	369.5	532.6	652.6
45°	159.9	199.9	315.1	473.4	588.6
47.5°	124.8	145.6	265.5	412.7	529.4
50°	108.8	112.0	217.5	356.7	468.7
52.5°	94.4	97.6	171.1	303.9	404.7
55°	81.6	84.8	131.2	249.5	335.9
57.5°	68.8	73.6	108.8	198.3	270.3
60°	57.6	64.0	97.6	152.0	207.9
62.5°	46.4	57.6	83.2	112.0	148.8
65°	38.4	54.4	70.4	78.4	92.8
67.5°	32.0	49.6	59.2	56.0	54.4
70°	27.2	44.8	49.6	44.8	46.4
72.5°	22.4	41.6	41.6	38.4	38.4
75°	19.2	36.8	35.2	33.6	33.6
77.5°	16.0	32.0	30.4	28.8	27.2
80°	12.8	25.6	25.6	24.0	22.4
82.5°	11.2	20.8	20.8	20.8	17.6
85°	8.0	17.6	19.2	17.6	14.4
87.5°	6.4	16.0	16.0	14.4	9.6
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	9.41	10.73	9.77	11.04	11.36	16.77	18.09	17.13	18.40	18.72
	3H	10.80	11.97	11.18	12.30	12.66	17.00	18.17	17.38	18.50	18.86
	4H	11.35	12.44	11.75	12.79	13.18	17.11	18.21	17.52	18.56	18.94
	6H	11.78	12.79	12.20	13.16	13.55	17.23	18.23	17.64	18.60	19.00
	8H	11.96	12.91	12.39	13.30	13.71	17.28	18.23	17.71	18.62	19.03
	12H	12.12	13.03	12.55	13.41	13.84	17.34	18.25	17.77	18.63	19.06
4H	2H	10.51	11.60	10.91	11.95	12.33	16.73	17.82	17.13	18.17	18.55
	3H	12.17	13.06	12.58	13.47	13.87	17.09	17.98	17.50	18.38	18.79
	4H	12.98	13.78	13.42	14.20	14.64	17.28	18.08	17.72	18.50	18.95
	6H	13.62	14.31	14.08	14.75	15.22	17.51	18.20	17.98	18.65	19.12
	8H	13.85	14.50	14.32	14.95	15.42	17.62	18.26	18.09	18.71	19.18
	12H	14.07	14.64	14.55	15.12	15.59	17.75	18.32	18.23	18.80	19.27
8H	4H	13.42	14.07	13.89	14.52	14.99	17.32	17.97	17.79	18.42	18.89
	6H	14.33	14.86	14.84	15.36	15.84	17.65	18.18	18.15	18.68	19.16
	8H	14.75	15.23	15.27	15.75	16.24	17.84	18.32	18.36	18.83	19.32
	12H	15.17	15.59	15.69	16.09	16.66	18.09	18.51	18.61	19.01	19.58
12H	4H	13.48	14.05	13.97	14.54	15.01	17.31	17.88	17.80	18.37	18.84
	6H	14.47	14.95	14.99	15.46	15.95	17.67	18.14	18.19	18.66	19.15
	8H	15.01	15.43	15.52	15.92	16.50	17.92	18.35	18.44	18.84	19.41