

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: P1059512

Luminaire Tested: S123RDR-H1165D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

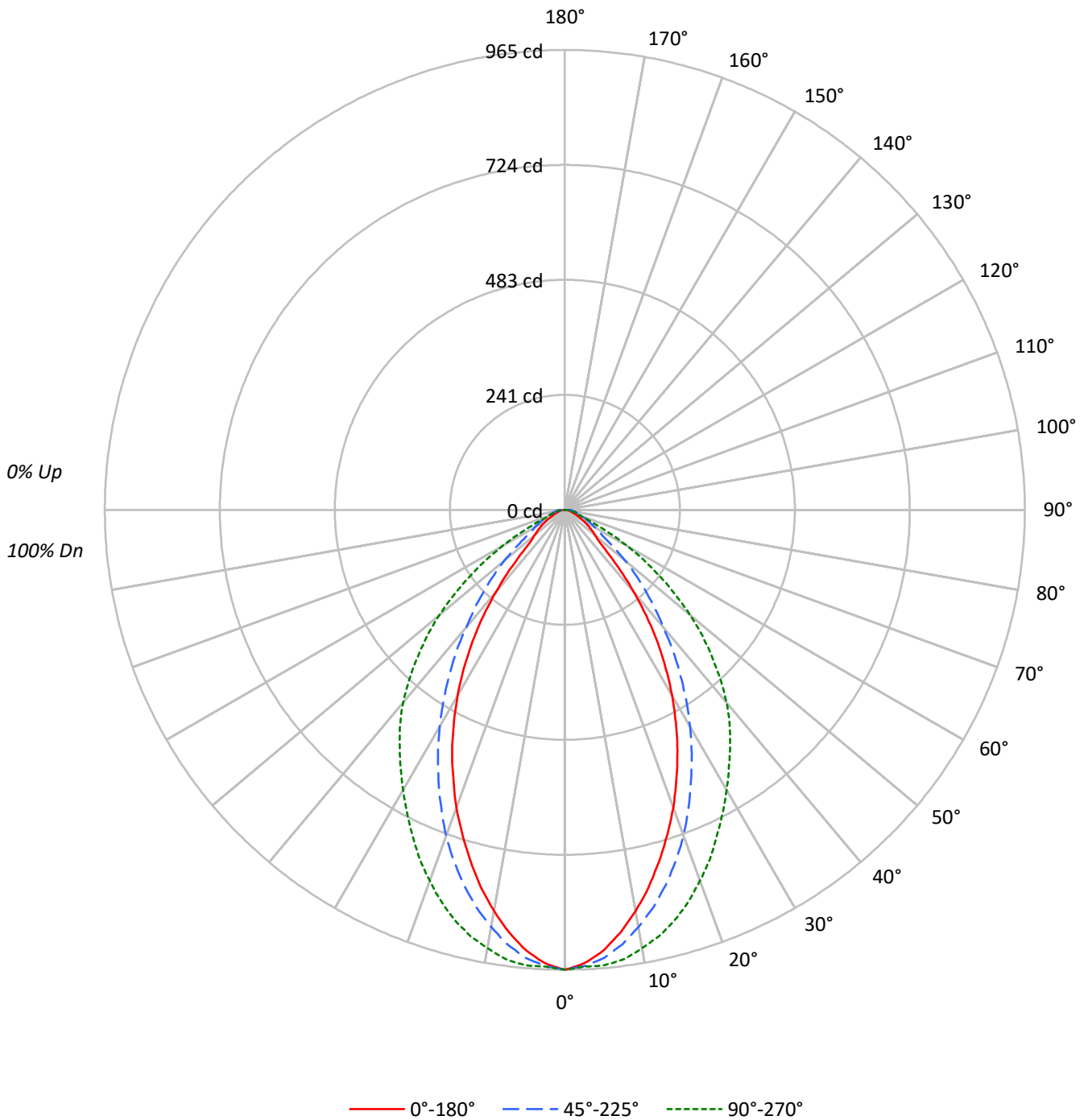
Lumens per Lamp: N/A
Luminaire Lumens: 1292.2 lumens
Efficiency: N/A
Efficacy: 35.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11330	11330	11330
5°	10942	11125	11306
10°	10195	10598	11135
15°	9282	9915	10839
20°	8309	9100	10349
25°	7245	8121	9782
30°	6092	7124	9205
35°	4847	6038	8663
40°	3455	4924	8097
45°	2059	3954	7252
50°	1518	3011	6279
55°	1269	2047	4989
60°	1026	1686	3506
65°	822	1448	1878
70°	676	1257	1160
75°	640	1216	1084
80°	669	1332	1048
85°	943	1900	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.6	6.9
10°-20°	230.3	17.8
20°-30°	293.7	22.7
30°-40°	276.3	21.4
40°-50°	198.5	15.4
50°-60°	113.8	8.8
60°-70°	52.0	4.0
70°-80°	26.2	2.0
80°-90°	12.8	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°	612.6	47.4
0°-40°	888.9	68.8
0°-60°	1201.3	93.0
0°-90°	1292.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1292.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	928	947	944	951	959	86
15°	764	790	816	859	892	213
25°	559	585	627	694	755	255
35°	338	362	421	517	604	209
45°	124	151	238	351	437	104
55°	62	63	100	184	244	56
65°	30	41	52	58	68	30
75°	14	28	27	24	24	15
85°	7	14	14	13	10	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.9	964.9	964.9	964.9	964.9
2.5°	952.2	966.3	957.8	957.8	959.2
5°	928.3	946.6	943.8	950.8	959.2
7.5°	894.5	914.2	919.8	936.7	950.8
10°	855.0	877.5	888.8	915.6	933.9
12.5°	811.3	836.7	855.0	888.8	915.6
15°	763.5	790.2	815.6	859.2	891.6
17.5°	714.2	740.9	773.3	824.0	862.1
20°	664.9	691.6	728.2	781.8	828.2
22.5°	611.3	638.1	677.5	738.1	794.4
25°	559.2	584.6	626.8	694.4	755.0
27.5°	504.3	529.6	576.1	649.4	717.0
30°	449.3	474.7	525.4	604.3	678.9
32.5°	394.4	418.4	473.3	560.6	640.9
35°	338.1	362.0	421.2	517.0	604.3
37.5°	280.3	304.3	373.3	477.5	567.7
40°	225.4	252.1	321.2	438.1	528.2
42.5°	171.8	200.0	278.9	395.8	483.1
45°	124.0	150.7	238.1	350.7	436.7
47.5°	94.4	108.5	201.4	305.7	391.6
50°	83.1	84.5	164.8	264.8	343.7
52.5°	71.8	73.2	128.2	225.4	293.0
55°	62.0	63.4	100.0	184.5	243.7
57.5°	52.1	54.9	81.7	146.5	195.8
60°	43.7	49.3	71.8	111.3	149.3
62.5°	35.2	45.1	62.0	81.7	107.1
65°	29.6	40.8	52.1	57.8	67.6
67.5°	23.9	38.0	43.7	40.8	40.8
70°	19.7	33.8	36.6	33.8	33.8
72.5°	16.9	32.4	31.0	28.2	28.2
75°	14.1	28.2	26.8	23.9	23.9
77.5°	12.7	23.9	22.5	21.1	19.7
80°	9.9	19.7	19.7	18.3	15.5
82.5°	8.5	16.9	16.9	15.5	12.7
85°	7.0	14.1	14.1	12.7	9.9
87.5°	5.6	12.7	12.7	11.3	7.0
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	8.41	9.73	8.78	10.05	10.36	15.64	16.96	16.01	17.27	17.59
	3H	9.81	10.98	10.19	11.31	11.68	15.88	17.05	16.26	17.38	17.74
	4H	10.38	11.47	10.78	11.82	12.20	15.98	17.07	16.39	17.42	17.81
	6H	10.84	11.84	11.25	12.21	12.60	16.09	17.09	16.51	17.46	17.86
	8H	11.03	11.97	11.46	12.37	12.77	16.14	17.09	16.57	17.48	17.88
	12H	11.22	12.12	11.65	12.51	12.94	16.19	17.10	16.62	17.48	17.91
4H	2H	9.49	10.58	9.89	10.93	11.31	15.60	16.69	16.01	17.04	17.43
	3H	11.18	12.07	11.59	12.47	12.88	15.97	16.86	16.38	17.27	17.67
	4H	12.01	12.81	12.45	13.23	13.67	16.15	16.95	16.59	17.37	17.81
	6H	12.67	13.36	13.14	13.81	14.28	16.38	17.07	16.84	17.51	17.98
	8H	12.93	13.57	13.40	14.02	14.49	16.48	17.12	16.95	17.57	18.04
	12H	13.18	13.76	13.67	14.24	14.71	16.59	17.17	17.08	17.65	18.12
8H	4H	12.45	13.09	12.92	13.54	14.01	16.20	16.84	16.67	17.29	17.76
	6H	13.40	13.93	13.90	14.43	14.91	16.53	17.06	17.03	17.56	18.04
	8H	13.87	14.34	14.39	14.86	15.35	16.72	17.20	17.24	17.71	18.20
	12H	14.34	14.77	14.86	15.26	15.83	16.95	17.38	17.47	17.87	18.44
12H	4H	12.51	13.08	12.99	13.56	14.04	16.19	16.76	16.68	17.25	17.72
	6H	13.55	14.02	14.07	14.54	15.03	16.56	17.03	17.08	17.55	18.04
	8H	14.14	14.56	14.66	15.06	15.63	16.82	17.24	17.33	17.73	18.31