

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: P1059086

Luminaire Tested: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059086
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

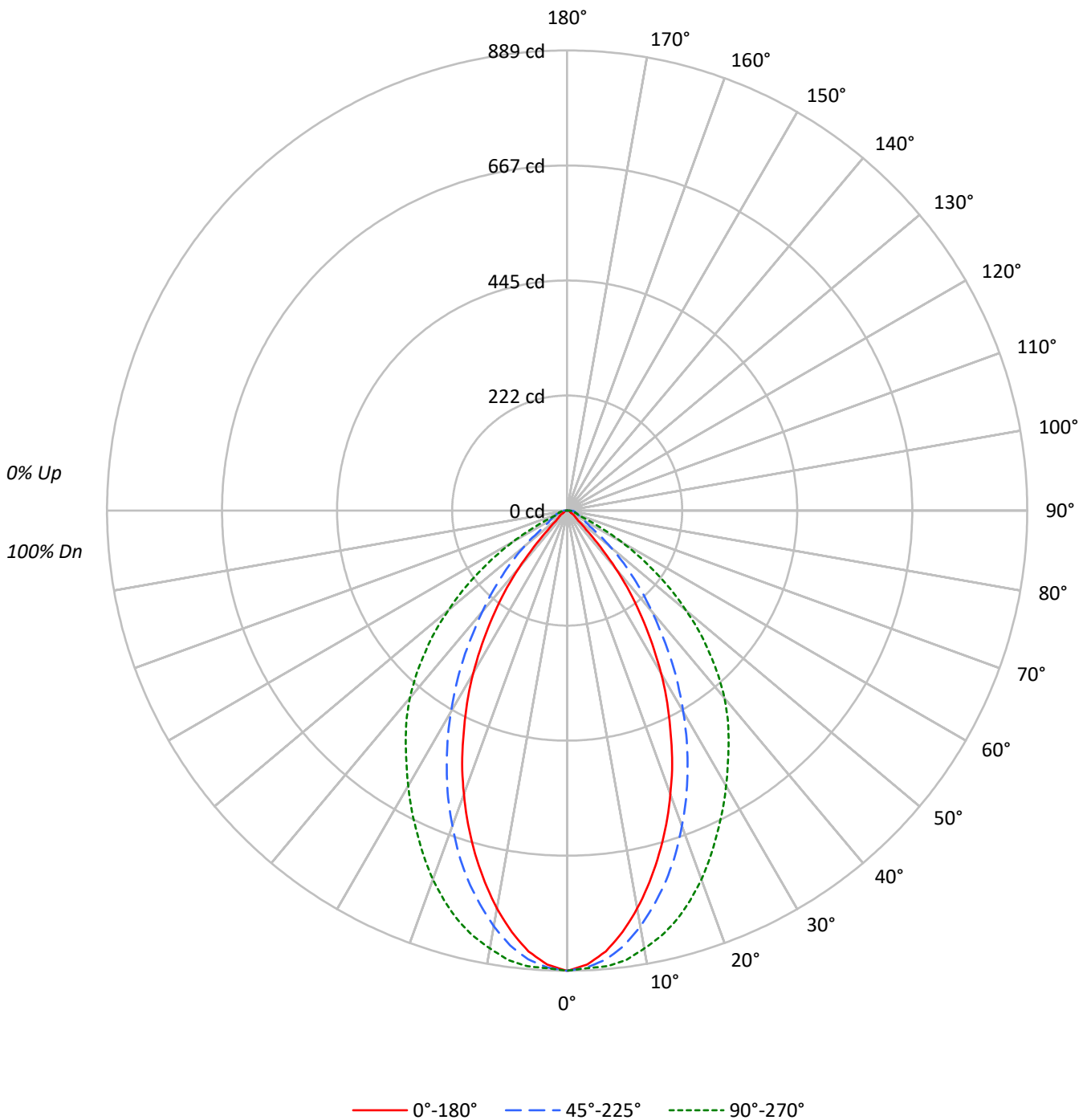
Lumens per Lamp: N/A
Luminaire Lumens: 1067.9 lumens
Efficiency: N/A
Efficacy: 25.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10439	10439	10439
5°	10078	10255	10415
10°	9304	9725	10244
15°	8346	8990	9948
20°	7288	8102	9478
25°	6130	7132	8895
30°	4921	6083	8331
35°	3605	5009	7794
40°	2230	3897	7252
45°	859	2934	6457
50°	422	2011	5464
55°	334	1114	4285
60°	223	925	2872
65°	189	831	1284
70°	185	745	745
75°	245	803	740
80°	365	1014	825
85°	552	1644	1105

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.5	7.6
10°-20°	208.7	19.5
20°-30°	259.0	24.3
30°-40°	232.0	21.7
40°-50°	152.5	14.3
50°-60°	76.4	7.2
60°-70°	30.2	2.8
70°-80°	16.9	1.6
80°-90°	10.6	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°	549.2	51.4
0°-40°	781.2	73.2
0°-60°	1010.2	94.6
0°-90°	1067.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1067.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	855	869	870	875	884	79
15°	686	708	740	790	818	191
25°	473	503	550	628	686	216
35°	252	286	349	457	544	156
45°	52	86	177	298	389	49
55°	16	19	54	147	209	15
65°	7	19	30	38	46	7
75°	5	18	18	16	16	6
85°	4	12	12	12	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	889.0	889.0	889.0	889.0	889.0
2.5°	878.1	890.4	883.6	883.6	884.9
5°	855.0	868.6	870.0	875.4	883.6
7.5°	821.1	838.7	846.9	863.2	875.4
10°	780.3	799.3	815.6	844.2	859.1
12.5°	735.4	754.4	778.9	818.3	841.4
15°	686.5	708.2	739.5	789.8	818.3
17.5°	636.2	657.9	696.0	753.1	789.8
20°	583.2	607.6	648.4	713.7	758.5
22.5°	530.1	557.3	600.8	671.5	723.2
25°	473.1	503.0	550.5	628.0	686.5
27.5°	418.7	449.9	500.2	584.5	651.1
30°	362.9	394.2	448.6	539.7	614.4
32.5°	305.9	341.2	398.3	497.5	577.7
35°	251.5	285.5	349.4	456.7	543.7
37.5°	198.5	232.4	299.1	417.3	509.8
40°	145.5	180.8	254.2	379.3	473.1
42.5°	95.2	131.9	214.8	341.2	432.3
45°	51.7	85.6	176.7	297.7	388.8
47.5°	28.5	46.2	142.7	256.9	346.6
50°	23.1	25.8	110.1	218.9	299.1
52.5°	19.0	21.7	78.8	182.2	255.6
55°	16.3	19.0	54.4	146.8	209.3
57.5°	13.6	16.3	43.5	112.8	164.5
60°	9.5	16.3	39.4	82.9	122.3
62.5°	8.2	16.3	34.0	57.1	81.6
65°	6.8	19.0	29.9	38.1	46.2
67.5°	5.4	19.0	25.8	24.5	24.5
70°	5.4	19.0	21.7	20.4	21.7
72.5°	5.4	20.4	20.4	19.0	19.0
75°	5.4	17.7	17.7	16.3	16.3
77.5°	5.4	16.3	16.3	15.0	15.0
80°	5.4	15.0	15.0	13.6	12.2
82.5°	5.4	13.6	13.6	12.2	10.9
85°	4.1	12.2	12.2	12.2	8.2
87.5°	4.1	10.9	12.2	10.9	6.8
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	0.60	1.86	0.97	2.17	2.49	14.69	15.95	15.06	16.26	16.58
	3H	3.12	4.23	3.50	4.56	4.93	14.77	15.89	15.15	16.22	16.58
	4H	4.29	5.32	4.69	5.67	6.06	14.84	15.87	15.24	16.22	16.61
	6H	5.33	6.29	5.75	6.66	7.05	14.94	15.89	15.35	16.26	16.65
	8H	5.87	6.77	6.30	7.16	7.57	15.00	15.90	15.43	16.29	16.69
	12H	6.35	7.21	6.79	7.60	8.03	15.07	15.93	15.50	16.31	16.74
4H	2H	3.87	4.90	4.27	5.25	5.64	14.55	15.59	14.96	15.94	16.33
	3H	6.32	7.17	6.74	7.58	7.98	14.73	15.58	15.14	15.98	16.38
	4H	7.67	8.43	8.11	8.85	9.29	14.86	15.61	15.29	16.03	16.48
	6H	8.80	9.46	9.27	9.91	10.37	15.07	15.73	15.54	16.17	16.64
	8H	9.31	9.92	9.78	10.37	10.84	15.20	15.81	15.67	16.26	16.73
	12H	9.77	10.31	10.26	10.79	11.27	15.36	15.90	15.85	16.38	16.86
8H	4H	8.59	9.20	9.06	9.65	10.12	14.86	15.47	15.33	15.92	16.39
	6H	10.19	10.69	10.70	11.19	11.67	15.19	15.69	15.69	16.19	16.67
	8H	11.02	11.47	11.54	11.99	12.48	15.42	15.87	15.94	16.39	16.88
	12H	11.80	12.20	12.31	12.69	13.26	15.74	16.14	16.26	16.64	17.21
12H	4H	8.76	9.30	9.25	9.78	10.26	14.85	15.39	15.34	15.87	16.35
	6H	10.51	10.96	11.03	11.48	11.97	15.22	15.67	15.75	16.19	16.68
	8H	11.52	11.92	12.03	12.41	12.98	15.53	15.93	16.05	16.43	17.00