

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: P1059099

Luminaire Tested: S123RDRP-S1165D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059099
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-S1165D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

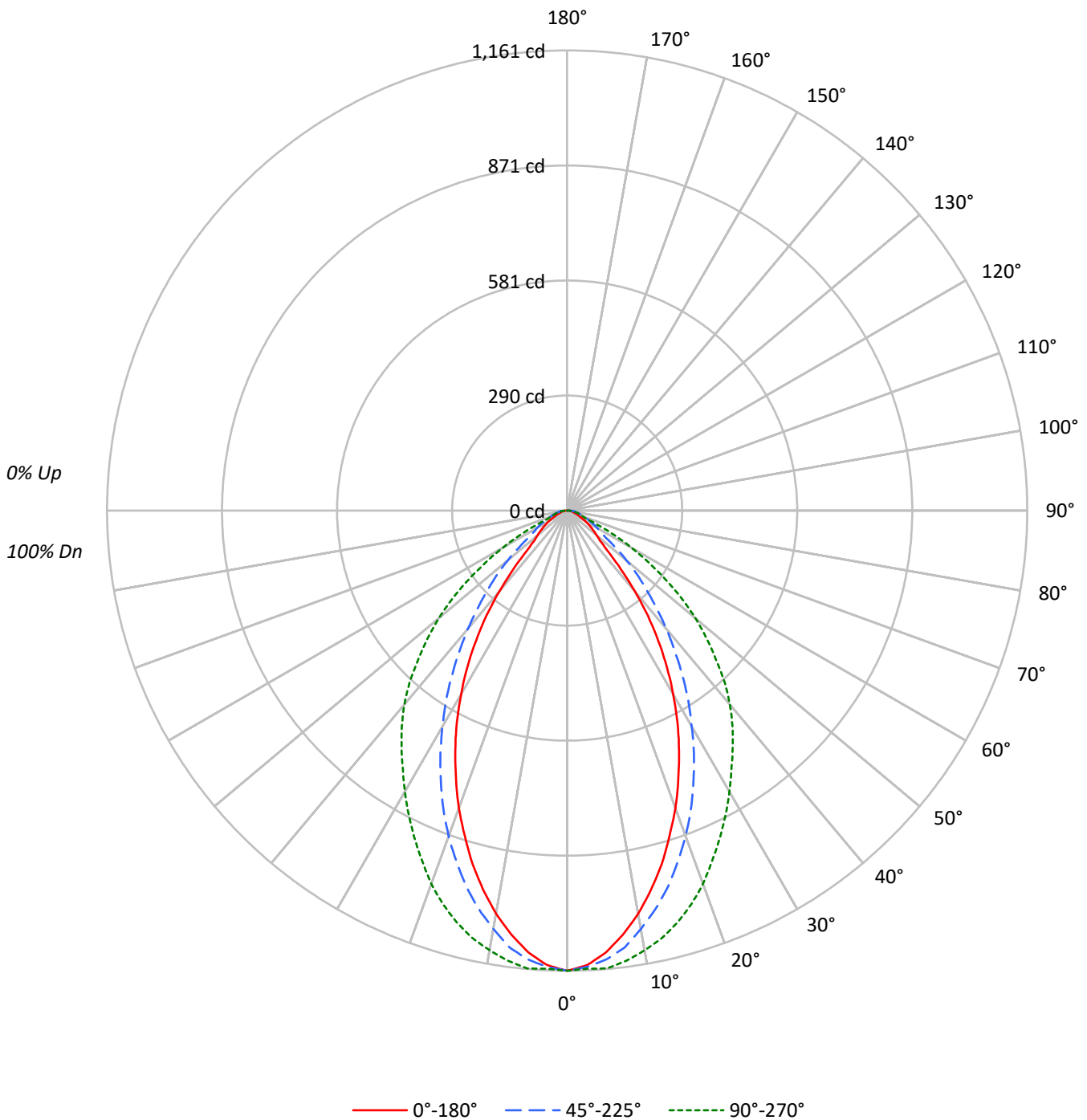
Lumens per Lamp: N/A
Luminaire Lumens: 1558.6 lumens
Efficiency: N/A
Efficacy: 37.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	13633	13633	13633
5°	13192	13396	13669
10°	12313	12777	13431
15°	11222	11940	13079
20°	9984	10922	12526
25°	8652	9773	11810
30°	7255	8526	11108
35°	5748	7256	10442
40°	4068	5969	9793
45°	2395	4718	8815
50°	1792	3584	7720
55°	1507	2422	6201
60°	1219	2067	4403
65°	961	1764	2326
70°	841	1535	1435
75°	785	1438	1375
80°	778	1562	1366
85°	970	2331	1751

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8815 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.8	6.9
10°-20°	277.7	17.8
20°-30°	353.7	22.7
30°-40°	332.7	21.3
40°-50°	239.6	15.4
50°-60°	138.4	8.9
60°-70°	63.3	4.1
70°-80°	31.6	2.0
80°-90°	14.9	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°	738.2	47.4
0°-40°	1070.9	68.7
0°-60°	1448.8	93.0
0°-90°	1558.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1558.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1161	1161	1161	1161	1161	
5°	1119	1138	1136	1148	1160	104
15°	923	956	982	1037	1076	257
25°	668	702	754	838	912	305
35°	401	436	506	623	728	249
45°	144	180	284	427	531	122
55°	74	76	118	225	303	66
65°	35	49	64	71	84	35
75°	17	33	32	30	30	18
85°	7	16	17	16	13	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1161.0	1161.0	1161.0	1161.0	1161.0
2.5°	1148.1	1162.5	1152.4	1153.8	1156.7
5°	1119.2	1138.0	1136.5	1148.1	1159.6
7.5°	1078.8	1100.5	1112.0	1129.3	1145.2
10°	1032.7	1057.2	1071.6	1103.3	1126.4
12.5°	979.3	1011.0	1029.8	1071.6	1104.8
15°	923.1	956.2	982.2	1037.0	1075.9
17.5°	859.6	895.7	928.8	993.7	1041.3
20°	799.0	833.6	874.0	944.7	1002.4
22.5°	732.7	770.2	816.3	891.3	956.2
25°	667.8	702.4	754.3	838.0	911.5
27.5°	602.9	637.5	692.3	784.6	865.4
30°	535.1	571.1	628.8	731.2	819.2
32.5°	468.7	503.4	568.3	679.3	771.6
35°	401.0	435.6	506.2	623.1	728.4
37.5°	334.6	370.7	445.7	576.9	685.1
40°	265.4	304.3	389.4	529.3	638.9
42.5°	200.5	242.3	333.2	480.3	588.5
45°	144.2	180.3	284.1	426.9	530.8
47.5°	112.5	131.2	239.4	372.1	477.4
50°	98.1	101.0	196.2	321.6	422.6
52.5°	85.1	88.0	154.3	274.0	364.9
55°	73.6	76.4	118.3	225.0	302.9
57.5°	62.0	66.3	98.1	178.8	243.7
60°	51.9	57.7	88.0	137.0	187.5
62.5°	41.8	51.9	75.0	101.0	134.1
65°	34.6	49.0	63.5	70.7	83.7
67.5°	28.8	44.7	53.4	50.5	49.0
70°	24.5	40.4	44.7	40.4	41.8
72.5°	20.2	37.5	37.5	34.6	34.6
75°	17.3	33.2	31.7	30.3	30.3
77.5°	14.4	28.8	27.4	26.0	24.5
80°	11.5	23.1	23.1	21.6	20.2
82.5°	10.1	18.7	18.7	18.7	15.9
85°	7.2	15.9	17.3	15.9	13.0
87.5°	5.8	14.4	14.4	13.0	8.7
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	9.04	10.36	9.41	10.68	10.99	16.41	17.73	16.77	18.04	18.36
	3H	10.43	11.60	10.81	11.93	12.30	16.64	17.81	17.02	18.14	18.50
	4H	10.99	12.08	11.39	12.43	12.81	16.75	17.84	17.16	18.20	18.58
	6H	11.42	12.42	11.83	12.79	13.19	16.87	17.87	17.28	18.24	18.64
	8H	11.60	12.55	12.03	12.94	13.34	16.92	17.87	17.35	18.26	18.67
	12H	11.75	12.66	12.18	13.04	13.47	16.98	17.89	17.41	18.27	18.70
4H	2H	10.15	11.24	10.55	11.59	11.97	16.37	17.46	16.77	17.81	18.19
	3H	11.81	12.70	12.22	13.11	13.51	16.73	17.62	17.14	18.02	18.43
	4H	12.62	13.42	13.05	13.84	14.28	16.92	17.72	17.36	18.14	18.59
	6H	13.25	13.94	13.72	14.39	14.86	17.15	17.84	17.61	18.29	18.76
	8H	13.49	14.13	13.96	14.58	15.05	17.26	17.90	17.72	18.35	18.82
	12H	13.70	14.27	14.19	14.76	15.23	17.39	17.96	17.87	18.44	18.91
8H	4H	13.06	13.71	13.53	14.15	14.63	16.96	17.61	17.43	18.06	18.53
	6H	13.97	14.50	14.47	15.00	15.48	17.29	17.82	17.79	18.32	18.80
	8H	14.39	14.87	14.91	15.38	15.87	17.48	17.96	18.00	18.47	18.96
	12H	14.81	15.23	15.32	15.72	16.30	17.73	18.15	18.24	18.65	19.22
12H	4H	13.12	13.69	13.60	14.17	14.65	16.95	17.52	17.44	18.01	18.48
	6H	14.11	14.58	14.63	15.10	15.59	17.31	17.78	17.83	18.30	18.79
	8H	14.64	15.07	15.16	15.56	16.13	17.56	17.98	18.08	18.48	19.05