

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: P1055552

Luminaire Tested: S123R3DRP-S1000D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DRP-S1000D835-X4F0-XX-UDD-F-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

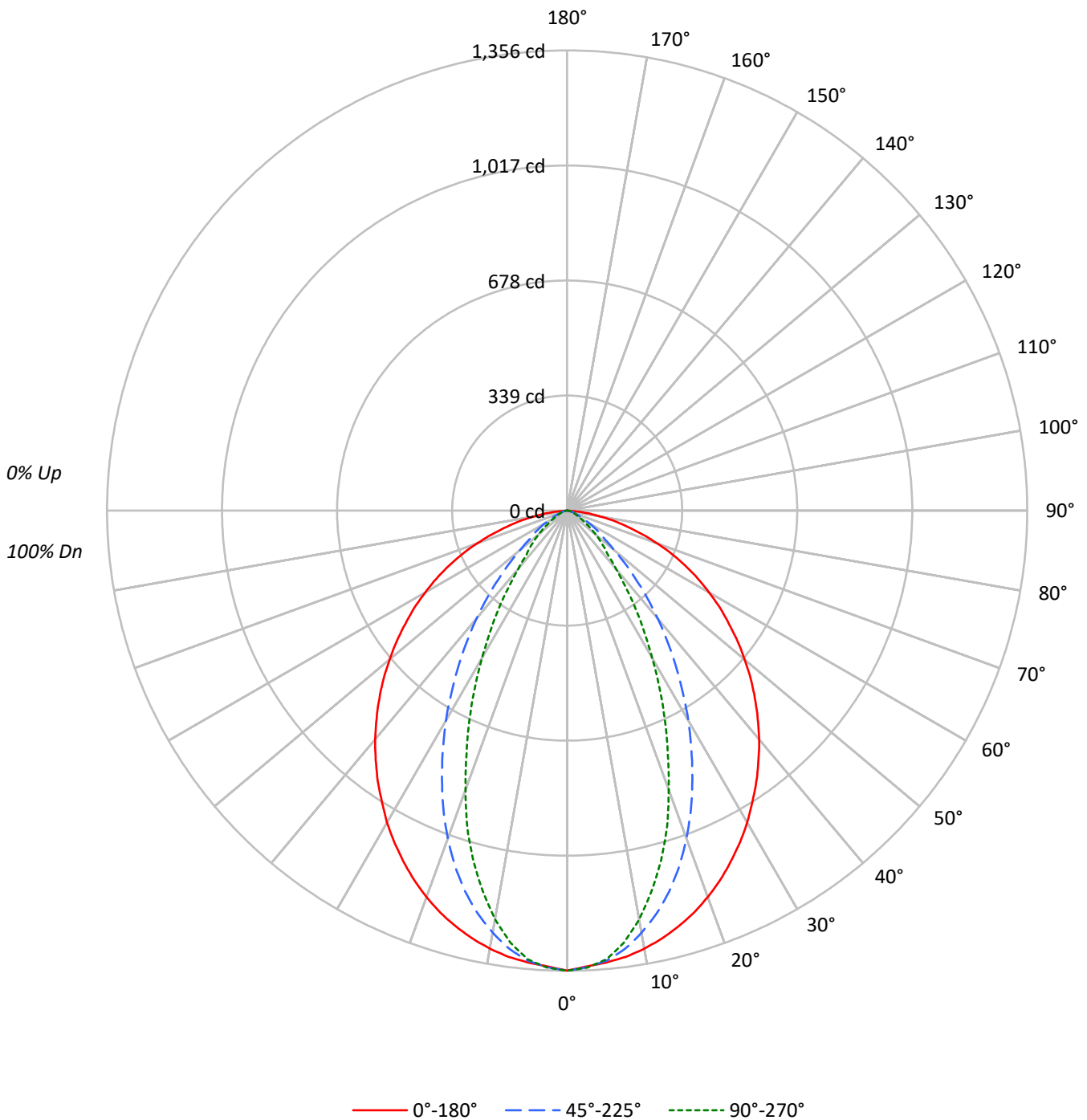
Lumens per Lamp: N/A
Luminaire Lumens: 1885.4 lumens
Efficiency: N/A
Efficacy: 54.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	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	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91					89				
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81					79				
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72					70				
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64					62				
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58					56				
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53					51				
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48					46				
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44					42				
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41					39				
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38					36				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16345	16345	16345
5°	16175	16112	16066
10°	16047	15465	14977
15°	15832	14500	13329
20°	15548	13189	11228
25°	15180	11608	9061
30°	14778	9947	6977
35°	14318	8208	5163
40°	13855	6533	3519
45°	13344	4887	2651
50°	12799	3399	2073
55°	12236	2485	1513
60°	11651	1859	1085
65°	10960	1247	844
70°	9920	906	680
75°	8562	657	540
80°	6867	535	444
85°	3555	539	360

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13344 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.3	6.6
10°-20°	326.2	17.3
20°-30°	409.9	21.7
30°-40°	381.7	20.2
40°-50°	292.2	15.5
50°-60°	194.2	10.3
60°-70°	104.7	5.6
70°-80°	42.9	2.3
80°-90°	8.2	0.4
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°	861.4	45.7
0°-40°	1243.1	65.9
0°-60°	1729.6	91.7
0°-90°	1885.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1885.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1356	1356	1356	1356	1356	
5°	1336	1351	1331	1326	1328	127
15°	1268	1248	1162	1094	1068	357
25°	1141	1064	873	727	681	525
35°	973	829	558	394	351	608
45°	783	578	287	168	156	604
55°	582	337	118	82	72	522
65°	384	130	44	32	30	380
75°	184	31	14	13	12	197
85°	26	4	4	4	3	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1355.7	1355.7	1355.7	1355.7	1355.7
2.5°	1344.2	1360.9	1346.7	1348.0	1348.0
5°	1336.5	1350.6	1331.3	1326.2	1327.5
7.5°	1326.2	1335.2	1303.1	1286.3	1283.8
10°	1310.8	1313.3	1263.2	1233.7	1223.4
12.5°	1291.5	1282.5	1217.0	1168.1	1148.8
15°	1268.4	1247.8	1161.7	1093.6	1067.9
17.5°	1242.7	1208.0	1098.7	1010.1	979.2
20°	1211.8	1163.0	1028.0	917.5	875.1
22.5°	1178.4	1115.4	953.5	822.4	774.9
25°	1141.1	1064.0	872.6	727.3	681.1
27.5°	1102.6	1008.8	792.9	637.4	589.8
30°	1061.5	952.2	714.5	550.0	501.2
32.5°	1016.5	890.5	633.5	469.0	420.2
35°	972.8	828.9	557.7	394.5	350.8
37.5°	926.5	767.2	484.5	329.0	280.1
40°	880.3	704.2	415.1	264.7	223.6
42.5°	831.4	641.2	349.5	210.8	178.6
45°	782.6	578.3	286.6	168.3	155.5
47.5°	733.8	515.3	231.3	145.2	132.4
50°	682.4	454.9	181.2	123.4	110.5
52.5°	633.5	394.5	141.4	101.5	90.0
55°	582.1	336.7	118.2	82.2	72.0
57.5°	534.6	277.6	97.7	64.3	56.5
60°	483.2	224.9	77.1	50.1	45.0
62.5°	434.4	176.1	59.1	39.8	36.0
65°	384.2	129.8	43.7	32.1	29.6
67.5°	334.1	93.8	33.4	25.7	24.4
70°	281.4	70.7	25.7	20.6	19.3
72.5°	231.3	50.1	19.3	16.7	15.4
75°	183.8	30.8	14.1	12.9	11.6
77.5°	141.4	18.0	10.3	10.3	9.0
80°	98.9	10.3	7.7	7.7	6.4
82.5°	60.4	6.4	5.1	5.1	5.1
85°	25.7	3.9	3.9	3.9	2.6
87.5°	3.9	1.3	1.3	1.3	1.3
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	19.52	20.88	19.88	21.19	21.50	8.10	9.45	8.46	9.77	10.08
	3H	21.27	22.48	21.65	22.81	23.17	8.76	9.96	9.14	10.29	10.66
	4H	21.97	23.10	22.38	23.45	23.83	8.96	10.08	9.36	10.43	10.81
	6H	22.49	23.52	22.90	23.89	24.28	9.08	10.11	9.49	10.48	10.87
	8H	22.63	23.61	23.06	24.00	24.40	9.11	10.09	9.54	10.48	10.89
	12H	22.68	23.61	23.11	24.00	24.43	9.12	10.06	9.55	10.44	10.87
4H	2H	19.33	20.45	19.73	20.80	21.19	8.65	9.78	9.05	10.13	10.51
	3H	21.12	22.04	21.53	22.44	22.85	9.45	10.37	9.86	10.78	11.18
	4H	21.82	22.64	22.25	23.06	23.50	9.71	10.53	10.15	10.95	11.40
	6H	22.39	23.10	22.85	23.54	24.01	9.91	10.62	10.37	11.06	11.53
	8H	22.56	23.22	23.03	23.67	24.14	9.96	10.62	10.43	11.07	11.54
	12H	22.65	23.23	23.13	23.72	24.19	9.99	10.58	10.48	11.06	11.54
8H	4H	21.69	22.36	22.16	22.80	23.27	10.02	10.69	10.49	11.13	11.60
	6H	22.25	22.79	22.75	23.28	23.76	10.27	10.81	10.77	11.31	11.79
	8H	22.42	22.91	22.94	23.42	23.91	10.36	10.84	10.88	11.36	11.85
	12H	22.53	22.96	23.04	23.45	24.02	10.44	10.87	10.95	11.36	11.93
12H	4H	21.65	22.24	22.13	22.72	23.19	10.07	10.66	10.55	11.14	11.61
	6H	22.19	22.67	22.71	23.19	23.68	10.32	10.80	10.84	11.32	11.81
	8H	22.38	22.81	22.90	23.31	23.88	10.44	10.87	10.96	11.36	11.93