

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: P1056367

Luminaire Tested: S125R3DR-S1090D850-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056367
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1090D850-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

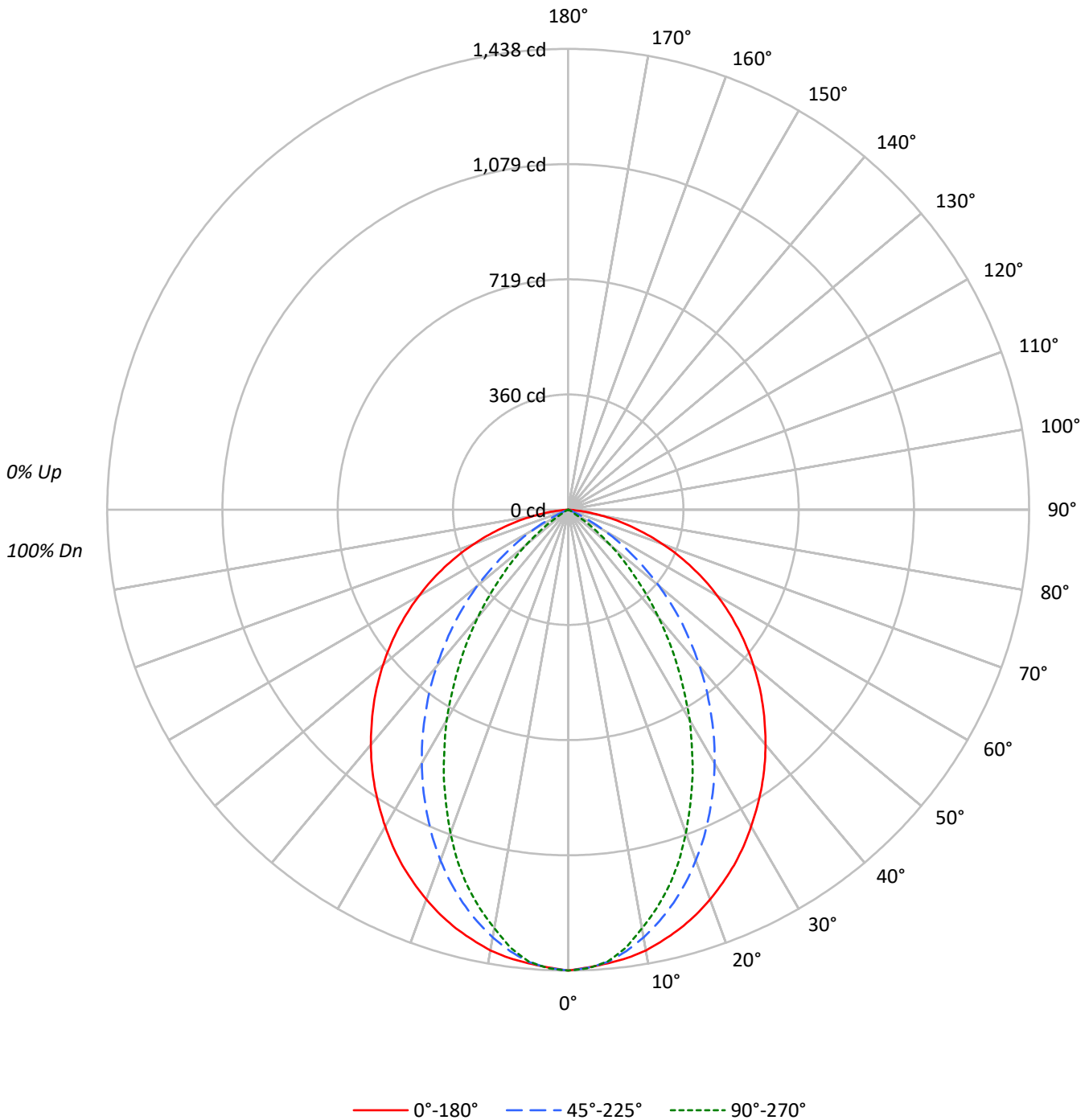
Lumens per Lamp: N/A
Luminaire Lumens: 2330.7 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10166	10166	10166
5°	10083	10053	10043
10°	10025	9729	9524
15°	9899	9293	8897
20°	9735	8759	8073
25°	9549	8137	7159
30°	9318	7457	6189
35°	9089	6703	5117
40°	8838	5892	4050
45°	8577	5030	2935
50°	8291	4059	1896
55°	7974	2968	843
60°	7597	1834	242
65°	7128	667	144
70°	6451	236	60
75°	5605	79	38
80°	4295	57	0
85°	1963	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8577 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.6	5.7
10°-20°	358.6	15.4
20°-30°	485.2	20.8
30°-40°	498.4	21.4
40°-50°	412.9	17.7
50°-60°	265.1	11.4
60°-70°	128.1	5.5
70°-80°	43.3	1.9
80°-90°	5.6	0.2
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°	977.4	41.9
0°-40°	1475.8	63.3
0°-60°	2153.8	92.4
0°-90°	2330.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2330.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1438	1438	1438	1438	1438	
5°	1421	1432	1417	1408	1415	135
15°	1352	1335	1270	1226	1216	381
25°	1224	1164	1043	949	918	563
35°	1053	952	777	641	593	658
45°	858	717	503	348	294	662
55°	647	475	241	106	68	578
65°	426	235	40	11	9	422
75°	205	44	3	1	1	218
85°	24	0	0	0	0	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1438.0	1438.0	1438.0	1438.0	1438.0
2.5°	1429.4	1440.8	1430.8	1429.4	1432.3
5°	1420.9	1432.3	1416.6	1408.0	1415.2
7.5°	1410.9	1416.6	1389.5	1375.3	1378.1
10°	1396.6	1395.2	1355.3	1331.1	1326.8
12.5°	1375.3	1368.1	1315.4	1281.2	1274.1
15°	1352.5	1335.4	1269.8	1225.6	1215.6
17.5°	1325.4	1298.3	1219.9	1162.9	1148.7
20°	1294.0	1257.0	1164.3	1094.5	1073.1
22.5°	1259.8	1212.8	1105.9	1023.3	994.7
25°	1224.2	1164.3	1043.2	949.1	917.8
27.5°	1184.3	1114.5	980.5	873.6	835.1
30°	1141.5	1061.7	913.5	796.7	758.2
32.5°	1097.4	1009.0	846.5	719.7	672.7
35°	1053.2	952.0	776.7	641.3	592.9
37.5°	1006.1	895.0	708.3	567.2	514.5
40°	957.7	836.6	638.5	490.2	438.9
42.5°	907.8	776.7	568.6	417.6	364.8
45°	857.9	716.8	503.1	347.7	293.6
47.5°	806.6	655.6	434.7	279.3	232.3
50°	753.9	595.7	369.1	218.0	172.4
52.5°	701.2	534.4	302.1	158.2	116.9
55°	647.0	474.6	240.8	105.5	68.4
57.5°	592.9	413.3	183.8	58.4	25.7
60°	537.3	354.9	129.7	20.0	17.1
62.5°	483.1	292.2	81.2	15.7	12.8
65°	426.1	235.1	39.9	11.4	8.6
67.5°	370.5	181.0	17.1	7.1	4.3
70°	312.1	131.1	11.4	4.3	2.9
72.5°	258.0	84.1	7.1	2.9	1.4
75°	205.2	44.2	2.9	1.4	1.4
77.5°	153.9	18.5	1.4	1.4	1.4
80°	105.5	8.6	1.4	1.4	0.0
82.5°	62.7	2.9	1.4	1.4	0.0
85°	24.2	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	0.0	0.0	0.0
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	19.13	20.51	19.49	20.82	21.14	3.99	5.37	4.35	5.69	6.00
	3H	20.68	21.90	21.05	22.23	22.60	3.91	5.14	4.29	5.47	5.83
	4H	21.20	22.34	21.60	22.69	23.07	3.84	4.99	4.25	5.34	5.72
	6H	21.54	22.59	21.95	22.96	23.35	3.77	4.83	4.19	5.20	5.59
	8H	21.62	22.62	22.05	23.01	23.41	3.73	4.73	4.16	5.12	5.52
	12H	21.64	22.59	22.07	22.97	23.40	3.69	4.65	4.13	5.03	5.46
4H	2H	18.93	20.07	19.33	20.42	20.81	4.85	6.00	5.25	6.35	6.73
	3H	20.54	21.48	20.95	21.88	22.28	4.80	5.74	5.21	6.14	6.54
	4H	21.06	21.90	21.50	22.32	22.76	4.72	5.56	5.16	5.98	6.42
	6H	21.44	22.16	21.90	22.60	23.07	4.66	5.38	5.12	5.82	6.29
	8H	21.54	22.21	22.01	22.66	23.13	4.61	5.28	5.08	5.73	6.20
	12H	21.57	22.17	22.06	22.65	23.12	4.57	5.16	5.05	5.64	6.11
8H	4H	20.94	21.61	21.41	22.05	22.52	5.75	6.42	6.21	6.86	7.33
	6H	21.29	21.84	21.79	22.34	22.82	5.66	6.21	6.16	6.71	7.19
	8H	21.39	21.88	21.91	22.39	22.89	5.61	6.10	6.13	6.62	7.11
	12H	21.43	21.87	21.94	22.36	22.93	5.57	6.00	6.08	6.50	7.07
12H	4H	20.89	21.49	21.38	21.97	22.44	5.82	6.42	6.31	6.90	7.37
	6H	21.23	21.73	21.75	22.24	22.73	5.73	6.22	6.25	6.73	7.22
	8H	21.35	21.78	21.86	22.28	22.85	5.69	6.13	6.21	6.62	7.19