

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: P1056477

Luminaire Tested: S125R3DR-S850D850-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056477
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D850-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

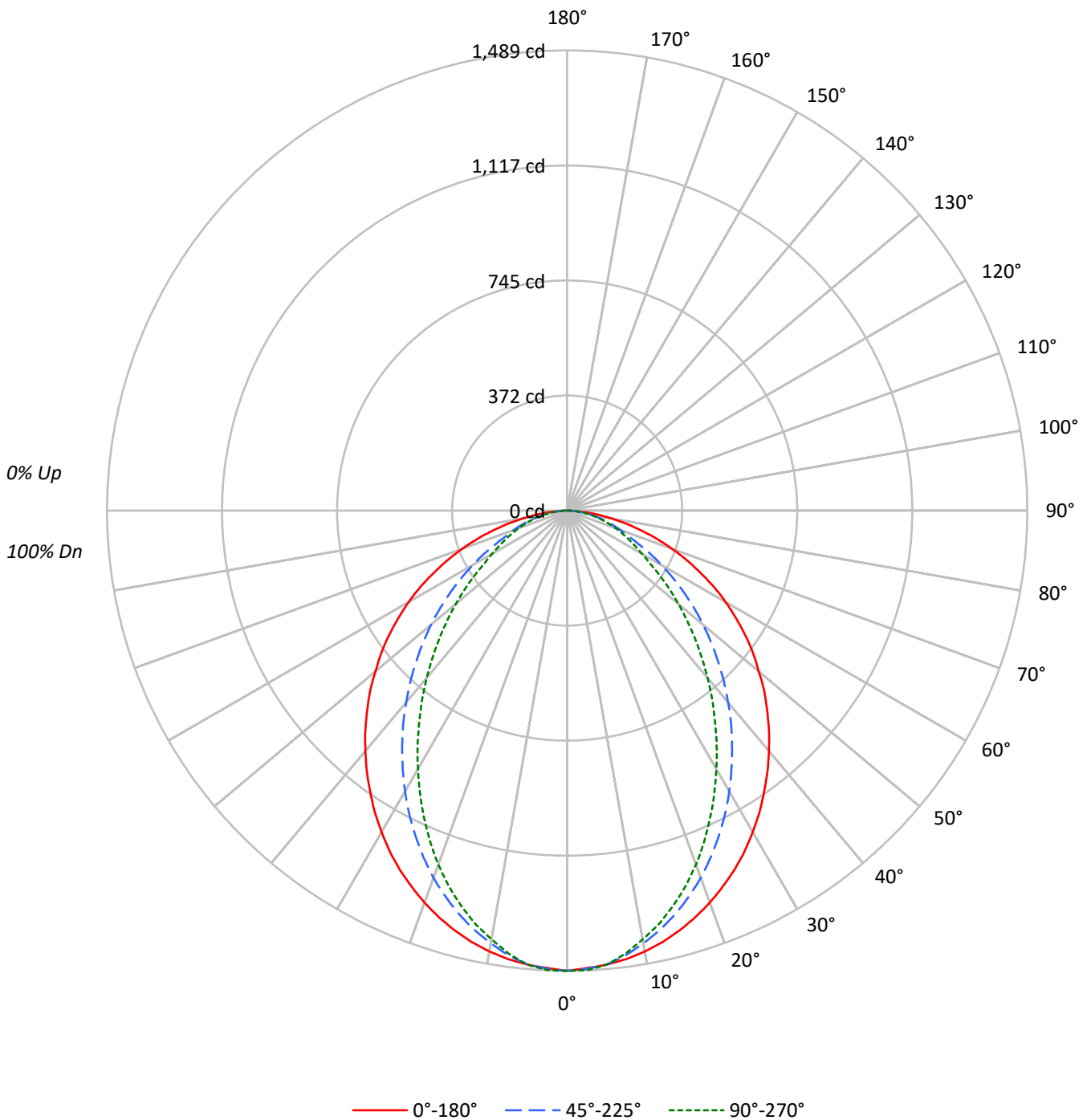
Lumens per Lamp: N/A
Luminaire Lumens: 3156.7 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10529	10529	10529
5°	10467	10459	10467
10°	10397	10206	10110
15°	10292	9894	9691
20°	10154	9511	9169
25°	10000	9057	8547
30°	9804	8564	7885
35°	9590	8030	7197
40°	9374	7481	6519
45°	9147	6907	5843
50°	8904	6318	5171
55°	8679	5672	4497
60°	8373	4987	3952
65°	7959	4230	3673
70°	7472	3782	3439
75°	6755	3483	3242
80°	5870	3159	3025
85°	4591	2790	2790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9147 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.4	4.4
10°-20°	382.6	12.1
20°-30°	540.5	17.1
30°-40°	595.0	18.8
40°-50°	555.0	17.6
50°-60°	443.1	14.0
60°-70°	298.2	9.4
70°-80°	158.8	5.0
80°-90°	44.1	1.4
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°	1062.5	33.7
0°-40°	1657.5	52.5
0°-60°	2655.6	84.1
0°-90°	3156.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3156.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1489	1489	1489	1489	1489	
5°	1475	1487	1474	1469	1475	140
15°	1406	1398	1352	1329	1324	396
25°	1282	1243	1161	1110	1096	590
35°	1111	1046	930	857	834	695
45°	915	828	691	607	584	706
55°	704	598	460	387	365	629
65°	476	372	253	224	220	472
75°	247	164	128	120	119	263
85°	57	39	34	36	34	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1489.4	1489.4	1489.4	1489.4	1489.4
2.5°	1481.6	1493.8	1483.8	1486.1	1488.3
5°	1475.0	1487.2	1473.9	1469.4	1475.0
7.5°	1463.9	1473.9	1451.7	1441.7	1446.1
10°	1448.4	1455.0	1421.7	1408.4	1408.4
12.5°	1429.5	1429.5	1389.6	1370.7	1370.7
15°	1406.2	1398.4	1351.9	1328.6	1324.1
17.5°	1379.6	1365.2	1309.7	1279.8	1274.2
20°	1349.7	1326.4	1264.3	1225.4	1218.8
22.5°	1316.4	1286.4	1214.4	1166.7	1158.9
25°	1282.0	1243.2	1161.1	1110.1	1095.7
27.5°	1243.2	1196.6	1106.8	1049.1	1031.4
30°	1201.0	1147.8	1049.1	984.8	965.9
32.5°	1157.8	1097.9	990.3	921.6	900.5
35°	1111.2	1045.8	930.5	857.3	834.0
37.5°	1064.6	993.7	871.7	795.2	770.8
40°	1015.8	938.2	810.7	731.9	706.4
42.5°	967.0	883.9	750.8	670.9	644.3
45°	914.9	828.4	690.9	606.6	584.4
47.5°	865.0	771.9	632.1	550.1	525.7
50°	809.6	713.1	574.5	492.4	470.2
52.5°	758.6	655.4	516.8	440.3	417.0
55°	704.2	597.8	460.2	387.0	364.9
57.5°	647.7	540.1	405.9	337.1	316.1
60°	592.2	482.4	352.7	289.4	279.5
62.5°	535.6	428.1	302.8	254.0	247.3
65°	475.8	371.5	252.9	224.0	219.6
67.5°	419.2	317.2	212.9	196.3	191.9
70°	361.5	262.8	183.0	168.6	166.4
72.5°	305.0	210.7	154.2	144.2	142.0
75°	247.3	164.1	127.5	119.8	118.7
77.5°	194.1	123.1	100.9	97.6	95.4
80°	144.2	92.0	77.6	75.4	74.3
82.5°	98.7	63.2	55.5	55.5	53.2
85°	56.6	38.8	34.4	35.5	34.4
87.5°	21.1	16.6	15.5	16.6	16.6
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	19.47	21.01	19.83	21.32	21.64	15.85	17.39	16.21	17.70	18.02
	3H	21.25	22.64	21.63	22.96	23.33	17.33	18.71	17.70	19.04	19.40
	4H	21.91	23.20	22.31	23.55	23.93	17.92	19.22	18.32	19.56	19.94
	6H	22.38	23.58	22.79	23.95	24.34	18.38	19.58	18.79	19.95	20.34
	8H	22.54	23.68	22.96	24.07	24.47	18.54	19.68	18.97	20.07	20.47
	12H	22.63	23.73	23.06	24.11	24.54	18.65	19.75	19.08	20.13	20.56
4H	2H	19.60	20.90	20.00	21.25	21.63	16.53	17.83	16.93	18.17	18.55
	3H	21.57	22.65	21.98	23.05	23.45	18.20	19.28	18.61	19.68	20.08
	4H	22.32	23.29	22.75	23.71	24.14	18.91	19.88	19.34	20.30	20.73
	6H	22.91	23.76	23.37	24.20	24.66	19.49	20.34	19.95	20.78	21.24
	8H	23.12	23.91	23.58	24.35	24.82	19.70	20.49	20.16	20.94	21.40
	12H	23.27	23.97	23.75	24.45	24.92	19.86	20.57	20.34	21.05	21.52
8H	4H	22.38	23.17	22.84	23.62	24.08	19.27	20.06	19.73	20.51	20.97
	6H	23.04	23.70	23.54	24.19	24.66	19.97	20.63	20.47	21.12	21.60
	8H	23.29	23.88	23.81	24.39	24.88	20.26	20.85	20.77	21.36	21.84
	12H	23.50	24.02	24.01	24.52	25.08	20.50	21.02	21.01	21.51	22.08
12H	4H	22.37	23.08	22.86	23.56	24.03	19.32	20.03	19.80	20.51	20.98
	6H	23.03	23.62	23.55	24.13	24.62	20.04	20.63	20.56	21.14	21.63
	8H	23.33	23.85	23.84	24.34	24.91	20.39	20.91	20.90	21.40	21.96