

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: P1056394

Luminaire Tested: S125R3DR-S1270D850-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056394
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-S1270D850-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

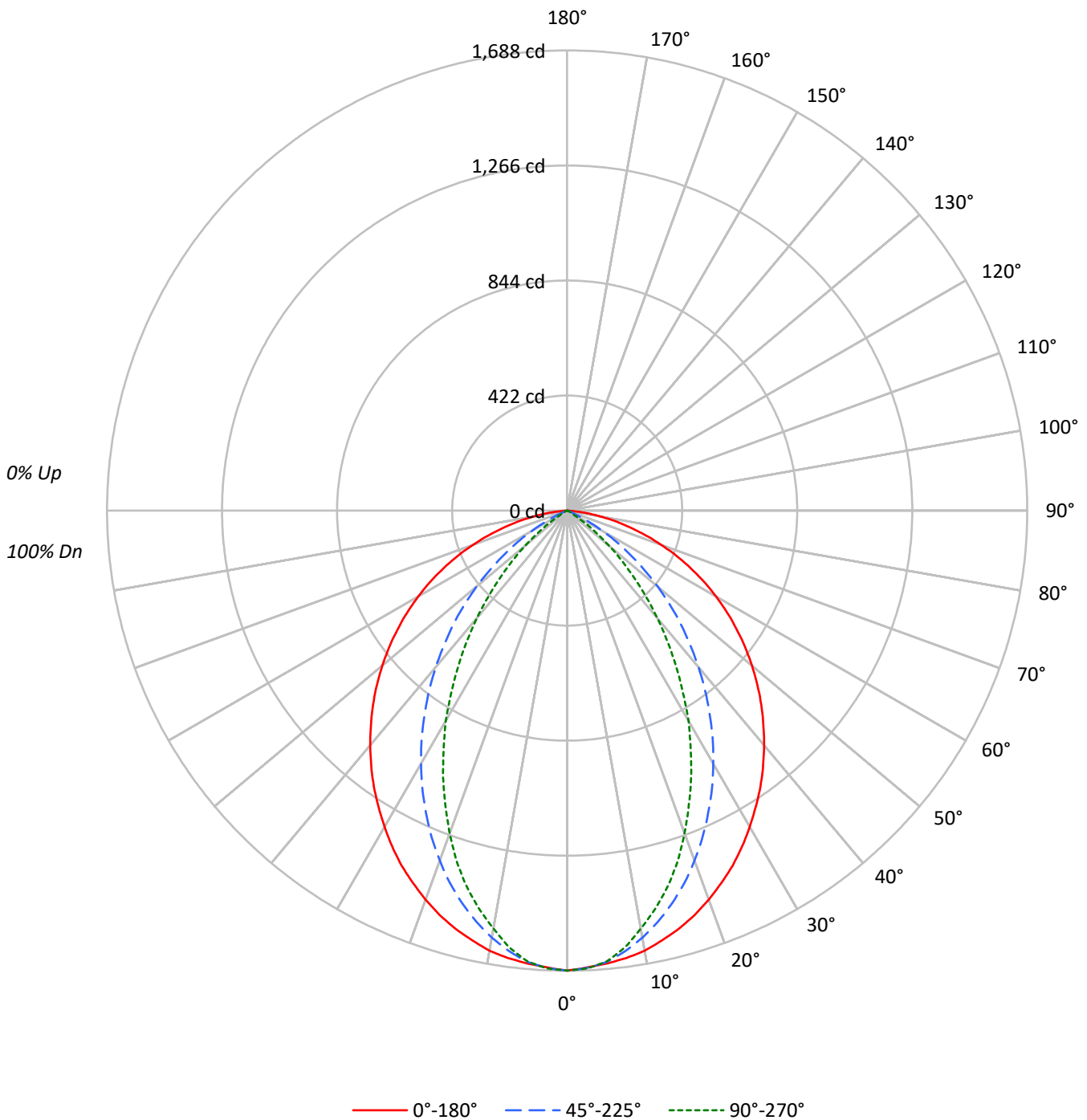
Lumens per Lamp: N/A
Luminaire Lumens: 2735.4 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	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°	11930	11930	11930
5°	11833	11798	11786
10°	11766	11418	11177
15°	11616	10906	10442
20°	11425	10280	9475
25°	11206	9550	8402
30°	10936	8752	7263
35°	10667	7866	6005
40°	10373	6915	4754
45°	10067	5903	3444
50°	9731	4764	2226
55°	9358	3484	990
60°	8914	2152	284
65°	8365	783	167
70°	7571	277	68
75°	6577	90	46
80°	5040	69	0
85°	2304	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10067 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	5.7
10°-20°	420.9	15.4
20°-30°	569.4	20.8
30°-40°	584.9	21.4
40°-50°	484.6	17.7
50°-60°	311.1	11.4
60°-70°	150.3	5.5
70°-80°	50.8	1.9
80°-90°	6.5	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°	1147.0	41.9
0°-40°	1732.0	63.3
0°-60°	2527.7	92.4
0°-90°	2735.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2735.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1668	1681	1662	1652	1661	158
15°	1587	1567	1490	1438	1427	447
25°	1437	1366	1224	1114	1077	661
35°	1236	1117	912	753	696	773
45°	1007	841	590	408	344	776
55°	759	557	283	124	80	679
65°	500	276	47	13	10	495
75°	241	52	3	2	2	255
85°	28	0	0	0	0	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1687.6	1687.6	1687.6	1687.6	1687.6
2.5°	1677.6	1690.9	1679.2	1677.6	1680.9
5°	1667.5	1680.9	1662.5	1652.5	1660.8
7.5°	1655.8	1662.5	1630.7	1614.0	1617.4
10°	1639.1	1637.4	1590.6	1562.2	1557.1
12.5°	1614.0	1605.6	1543.8	1503.6	1495.3
15°	1587.2	1567.2	1490.2	1438.4	1426.7
17.5°	1555.5	1523.7	1431.7	1364.8	1348.1
20°	1518.7	1475.2	1366.5	1284.5	1259.4
22.5°	1478.5	1423.3	1297.9	1200.9	1167.4
25°	1436.7	1366.5	1224.3	1113.9	1077.1
27.5°	1389.9	1307.9	1150.7	1025.3	980.1
30°	1339.7	1246.0	1072.1	935.0	889.8
32.5°	1287.9	1184.2	993.5	844.6	789.4
35°	1236.0	1117.3	911.5	752.6	695.8
37.5°	1180.8	1050.4	831.3	665.7	603.8
40°	1124.0	981.8	749.3	575.4	515.1
42.5°	1065.4	911.5	667.3	490.1	428.2
45°	1006.9	841.3	590.4	408.1	344.5
47.5°	946.7	769.4	510.1	327.8	272.6
50°	884.8	699.1	433.2	255.9	202.4
52.5°	822.9	627.2	354.6	185.7	137.1
55°	759.3	557.0	282.7	123.8	80.3
57.5°	695.8	485.0	215.8	68.6	30.1
60°	630.5	416.5	152.2	23.4	20.1
62.5°	567.0	342.9	95.3	18.4	15.1
65°	500.1	276.0	46.8	13.4	10.0
67.5°	434.9	212.4	20.1	8.4	5.0
70°	366.3	153.9	13.4	5.0	3.3
72.5°	302.7	98.7	8.4	3.3	1.7
75°	240.8	51.8	3.3	1.7	1.7
77.5°	180.6	21.7	1.7	1.7	1.7
80°	123.8	10.0	1.7	1.7	0.0
82.5°	73.6	3.3	1.7	1.7	0.0
85°	28.4	0.0	0.0	0.0	0.0
87.5°	1.7	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	19.68	21.07	20.05	21.38	21.69	4.55	5.93	4.91	6.25	6.56
	3H	21.23	22.46	21.61	22.79	23.15	4.47	5.70	4.85	6.03	6.39
	4H	21.75	22.90	22.16	23.25	23.63	4.40	5.55	4.81	5.90	6.28
	6H	22.09	23.14	22.51	23.51	23.91	4.33	5.39	4.75	5.76	6.15
	8H	22.17	23.17	22.60	23.56	23.97	4.29	5.29	4.72	5.68	6.08
	12H	22.19	23.14	22.62	23.53	23.96	4.25	5.21	4.69	5.59	6.02
4H	2H	19.48	20.63	19.89	20.98	21.36	5.41	6.56	5.81	6.91	7.29
	3H	21.10	22.03	21.51	22.44	22.84	5.36	6.29	5.77	6.70	7.10
	4H	21.62	22.45	22.06	22.87	23.31	5.28	6.12	5.72	6.53	6.98
	6H	22.00	22.71	22.46	23.16	23.63	5.22	5.94	5.68	6.38	6.85
	8H	22.09	22.77	22.56	23.21	23.68	5.17	5.84	5.63	6.28	6.75
	12H	22.13	22.72	22.62	23.21	23.68	5.12	5.72	5.61	6.20	6.67
8H	4H	21.49	22.16	21.96	22.61	23.08	6.30	6.97	6.77	7.42	7.89
	6H	21.85	22.40	22.35	22.89	23.37	6.22	6.77	6.72	7.27	7.75
	8H	21.94	22.44	22.46	22.95	23.44	6.17	6.66	6.69	7.18	7.67
	12H	21.99	22.42	22.50	22.92	23.49	6.13	6.56	6.64	7.06	7.63
12H	4H	21.45	22.04	21.94	22.53	23.00	6.38	6.98	6.87	7.46	7.93
	6H	21.79	22.28	22.31	22.80	23.29	6.28	6.78	6.80	7.29	7.78
	8H	21.90	22.34	22.42	22.83	23.40	6.25	6.69	6.77	7.18	7.75