

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: P1056391

Luminaire Tested: S125R3DR-S1270D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056391
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-S1270D840-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

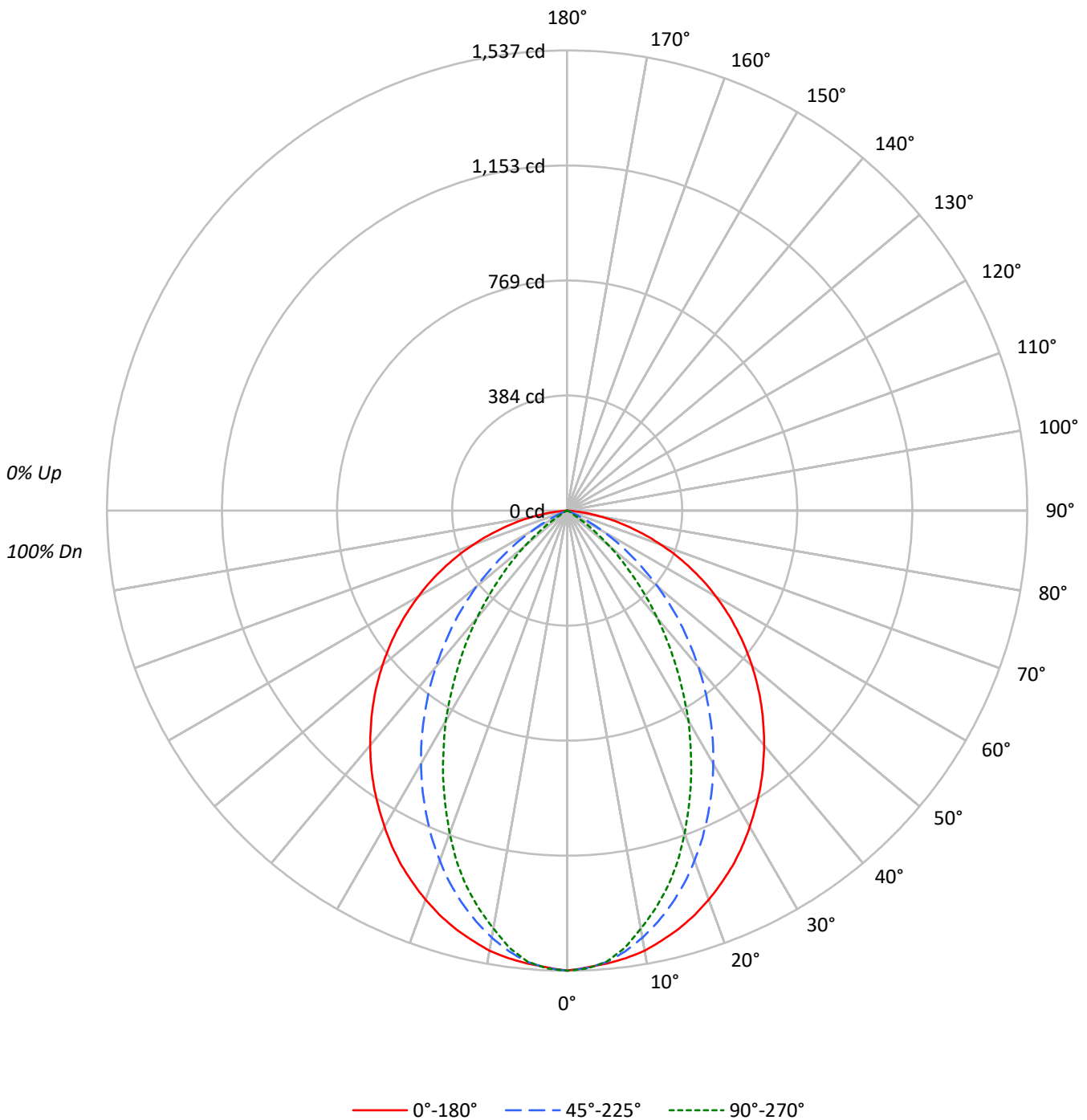
Lumens per Lamp: N/A
Luminaire Lumens: 2490.8 lumens
Efficiency: N/A
Efficacy: 59.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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°	10863	10863	10863
5°	10776	10743	10733
10°	10714	10397	10178
15°	10578	9931	9508
20°	10404	9361	8627
25°	10205	8696	7650
30°	9959	7970	6614
35°	9713	7164	5468
40°	9445	6297	4329
45°	9167	5375	3136
50°	8861	4339	2027
55°	8523	3172	901
60°	8118	1960	259
65°	7618	713	152
70°	6893	252	62
75°	5990	82	41
80°	4588	61	0
85°	2101	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9167 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	5.7
10°-20°	383.3	15.4
20°-30°	518.5	20.8
30°-40°	532.6	21.4
40°-50°	441.3	17.7
50°-60°	283.3	11.4
60°-70°	136.8	5.5
70°-80°	46.3	1.9
80°-90°	5.9	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°	1044.5	41.9
0°-40°	1577.1	63.3
0°-60°	2301.7	92.4
0°-90°	2490.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2490.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1518	1531	1514	1505	1512	144
15°	1445	1427	1357	1310	1299	407
25°	1308	1244	1115	1014	981	602
35°	1126	1017	830	685	634	704
45°	917	766	538	372	314	707
55°	692	507	257	113	73	618
65°	455	251	43	12	9	451
75°	219	47	3	2	2	233
85°	26	0	0	0	0	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.7	1536.7	1536.7	1536.7	1536.7
2.5°	1527.6	1539.8	1529.1	1527.6	1530.7
5°	1518.5	1530.7	1513.9	1504.8	1512.4
7.5°	1507.8	1513.9	1485.0	1469.7	1472.8
10°	1492.6	1491.1	1448.4	1422.5	1417.9
12.5°	1469.7	1462.1	1405.8	1369.2	1361.6
15°	1445.4	1427.1	1357.0	1309.8	1299.1
17.5°	1416.4	1387.5	1303.7	1242.8	1227.6
20°	1382.9	1343.3	1244.3	1169.7	1146.8
22.5°	1346.4	1296.1	1181.9	1093.5	1063.1
25°	1308.3	1244.3	1114.9	1014.3	980.8
27.5°	1265.6	1191.0	1047.8	933.6	892.5
30°	1220.0	1134.7	976.3	851.4	810.3
32.5°	1172.7	1078.3	904.7	769.1	718.9
35°	1125.5	1017.4	830.1	685.4	633.6
37.5°	1075.3	956.5	756.9	606.2	549.8
40°	1023.5	894.0	682.3	523.9	469.1
42.5°	970.2	830.1	607.7	446.2	389.9
45°	916.9	766.1	537.6	371.6	313.7
47.5°	862.0	700.6	464.5	298.5	248.3
50°	805.7	636.6	394.5	233.0	184.3
52.5°	749.3	571.1	322.9	169.1	124.9
55°	691.5	507.2	257.4	112.7	73.1
57.5°	633.6	441.7	196.5	62.4	27.4
60°	574.2	379.2	138.6	21.3	18.3
62.5°	516.3	312.2	86.8	16.8	13.7
65°	455.4	251.3	42.6	12.2	9.1
67.5°	396.0	193.4	18.3	7.6	4.6
70°	333.5	140.1	12.2	4.6	3.0
72.5°	275.7	89.9	7.6	3.0	1.5
75°	219.3	47.2	3.0	1.5	1.5
77.5°	164.5	19.8	1.5	1.5	1.5
80°	112.7	9.1	1.5	1.5	0.0
82.5°	67.0	3.0	1.5	1.5	0.0
85°	25.9	0.0	0.0	0.0	0.0
87.5°	1.5	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	19.36	20.74	19.72	21.05	21.37	4.22	5.60	4.58	5.91	6.23
	3H	20.91	22.13	21.29	22.46	22.83	4.14	5.37	4.52	5.70	6.06
	4H	21.43	22.57	21.83	22.92	23.31	4.07	5.22	4.47	5.57	5.95
	6H	21.77	22.82	22.18	23.19	23.58	4.00	5.05	4.42	5.42	5.82
	8H	21.85	22.85	22.28	23.24	23.64	3.96	4.96	4.39	5.35	5.75
	12H	21.87	22.82	22.30	23.20	23.63	3.92	4.87	4.35	5.26	5.69
4H	2H	19.16	20.30	19.56	20.65	21.04	5.08	6.22	5.48	6.57	6.96
	3H	20.77	21.71	21.19	22.11	22.51	5.03	5.96	5.44	6.37	6.77
	4H	21.30	22.13	21.73	22.55	22.99	4.95	5.78	5.39	6.20	6.65
	6H	21.67	22.39	22.13	22.84	23.30	4.89	5.60	5.35	6.05	6.51
	8H	21.77	22.44	22.24	22.89	23.36	4.83	5.51	5.30	5.95	6.42
	12H	21.80	22.40	22.29	22.88	23.35	4.79	5.39	5.28	5.87	6.34
8H	4H	21.17	21.84	21.64	22.29	22.76	5.97	6.64	6.44	7.09	7.56
	6H	21.52	22.07	22.02	22.57	23.05	5.89	6.44	6.39	6.93	7.42
	8H	21.62	22.11	22.14	22.62	23.12	5.84	6.33	6.36	6.84	7.34
	12H	21.66	22.10	22.17	22.59	23.16	5.80	6.23	6.31	6.73	7.30
12H	4H	21.13	21.72	21.61	22.20	22.67	6.05	6.65	6.54	7.13	7.60
	6H	21.46	21.96	21.98	22.47	22.96	5.95	6.45	6.47	6.96	7.45
	8H	21.58	22.01	22.09	22.51	23.08	5.92	6.36	6.43	6.85	7.42