

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: P1056526

Luminaire Tested: S125R3DR-H1270D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056526
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-H1270D840-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

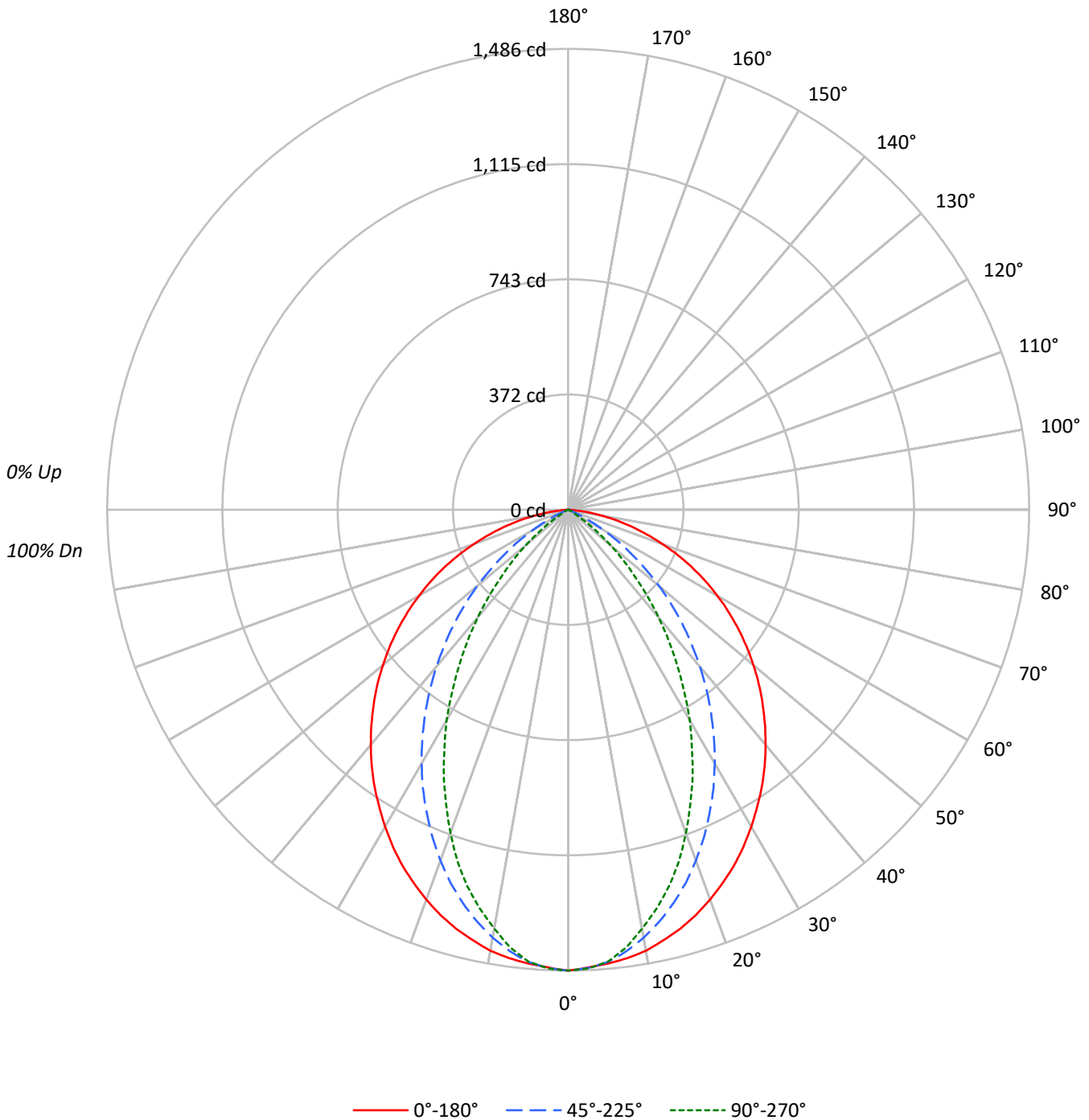
Lumens per Lamp: N/A
Luminaire Lumens: 2409.5 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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°	10509	10509	10509
5°	10424	10392	10382
10°	10364	10058	9846
15°	10232	9607	9197
20°	10064	9055	8346
25°	9871	8412	7401
30°	9633	7709	6398
35°	9396	6929	5289
40°	9136	6091	4188
45°	8867	5200	3034
50°	8572	4197	1961
55°	8244	3069	871
60°	7853	1896	250
65°	7368	691	147
70°	6668	244	60
75°	5796	79	41
80°	4437	61	0
85°	2028	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8867 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	5.7
10°-20°	370.7	15.4
20°-30°	501.6	20.8
30°-40°	515.2	21.4
40°-50°	426.9	17.7
50°-60°	274.1	11.4
60°-70°	132.4	5.5
70°-80°	44.8	1.9
80°-90°	5.8	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°	1010.4	41.9
0°-40°	1525.6	63.3
0°-60°	2226.5	92.4
0°-90°	2409.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2409.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1469	1481	1464	1456	1463	139
15°	1398	1380	1313	1267	1257	394
25°	1266	1204	1078	981	949	582
35°	1089	984	803	663	613	681
45°	887	741	520	360	304	684
55°	669	491	249	109	71	598
65°	440	243	41	12	9	436
75°	212	46	3	2	2	225
85°	25	0	0	0	0	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1486.5	1486.5	1486.5	1486.5	1486.5
2.5°	1477.7	1489.5	1479.2	1477.7	1480.6
5°	1468.9	1480.6	1464.4	1455.6	1463.0
7.5°	1458.5	1464.4	1436.4	1421.7	1424.7
10°	1443.8	1442.3	1401.1	1376.0	1371.6
12.5°	1421.7	1414.3	1359.8	1324.5	1317.1
15°	1398.1	1380.5	1312.7	1267.0	1256.7
17.5°	1370.1	1342.2	1261.1	1202.2	1187.5
20°	1337.7	1299.4	1203.7	1131.5	1109.4
22.5°	1302.4	1253.8	1143.3	1057.8	1028.3
25°	1265.5	1203.7	1078.4	981.2	948.8
27.5°	1224.3	1152.1	1013.6	903.1	863.3
30°	1180.1	1097.6	944.4	823.6	783.8
32.5°	1134.4	1043.1	875.1	744.0	695.4
35°	1088.8	984.1	802.9	663.0	612.9
37.5°	1040.1	925.2	732.2	586.4	531.9
40°	990.0	864.8	660.0	506.8	453.8
42.5°	938.5	802.9	587.8	431.7	377.2
45°	886.9	741.1	520.1	359.5	303.5
47.5°	833.9	677.7	449.3	288.8	240.1
50°	779.4	615.8	381.6	225.4	178.3
52.5°	724.9	552.5	312.3	163.5	120.8
55°	668.9	490.6	249.0	109.0	70.7
57.5°	612.9	427.3	190.1	60.4	26.5
60°	555.4	366.8	134.1	20.6	17.7
62.5°	499.4	302.0	84.0	16.2	13.3
65°	440.5	243.1	41.3	11.8	8.8
67.5°	383.1	187.1	17.7	7.4	4.4
70°	322.6	135.5	11.8	4.4	2.9
72.5°	266.7	86.9	7.4	2.9	1.5
75°	212.2	45.7	2.9	1.5	1.5
77.5°	159.1	19.2	1.5	1.5	1.5
80°	109.0	8.8	1.5	1.5	0.0
82.5°	64.8	2.9	1.5	1.5	0.0
85°	25.0	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	19.24	20.63	19.61	20.94	21.25	4.10	5.49	4.47	5.80	6.12
	3H	20.79	22.02	21.17	22.35	22.71	4.03	5.25	4.41	5.58	5.95
	4H	21.31	22.46	21.72	22.81	23.19	3.96	5.10	4.36	5.45	5.84
	6H	21.65	22.70	22.07	23.07	23.47	3.89	4.94	4.30	5.31	5.71
	8H	21.73	22.73	22.16	23.12	23.53	3.85	4.85	4.28	5.24	5.64
	12H	21.75	22.70	22.18	23.09	23.52	3.81	4.76	4.24	5.15	5.58
4H	2H	19.04	20.19	19.45	20.54	20.92	4.97	6.12	5.37	6.47	6.85
	3H	20.66	21.59	21.07	22.00	22.40	4.92	5.85	5.33	6.26	6.66
	4H	21.18	22.01	21.62	22.43	22.87	4.84	5.68	5.28	6.09	6.54
	6H	21.56	22.27	22.02	22.72	23.19	4.78	5.50	5.24	5.94	6.41
	8H	21.65	22.33	22.12	22.77	23.24	4.73	5.40	5.19	5.84	6.31
	12H	21.69	22.28	22.17	22.77	23.24	4.68	5.28	5.17	5.76	6.23
8H	4H	21.05	21.72	21.52	22.17	22.64	5.86	6.53	6.33	6.98	7.45
	6H	21.41	21.96	21.91	22.45	22.93	5.78	6.33	6.28	6.82	7.31
	8H	21.50	22.00	22.02	22.51	23.00	5.73	6.22	6.25	6.74	7.23
	12H	21.55	21.98	22.06	22.48	23.05	5.69	6.12	6.20	6.62	7.19
12H	4H	21.01	21.60	21.50	22.09	22.56	5.94	6.54	6.43	7.02	7.49
	6H	21.35	21.84	21.87	22.36	22.85	5.84	6.34	6.36	6.85	7.34
	8H	21.46	21.90	21.98	22.39	22.96	5.81	6.25	6.33	6.74	7.31