

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: P1056393

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056393
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-S1270D840-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

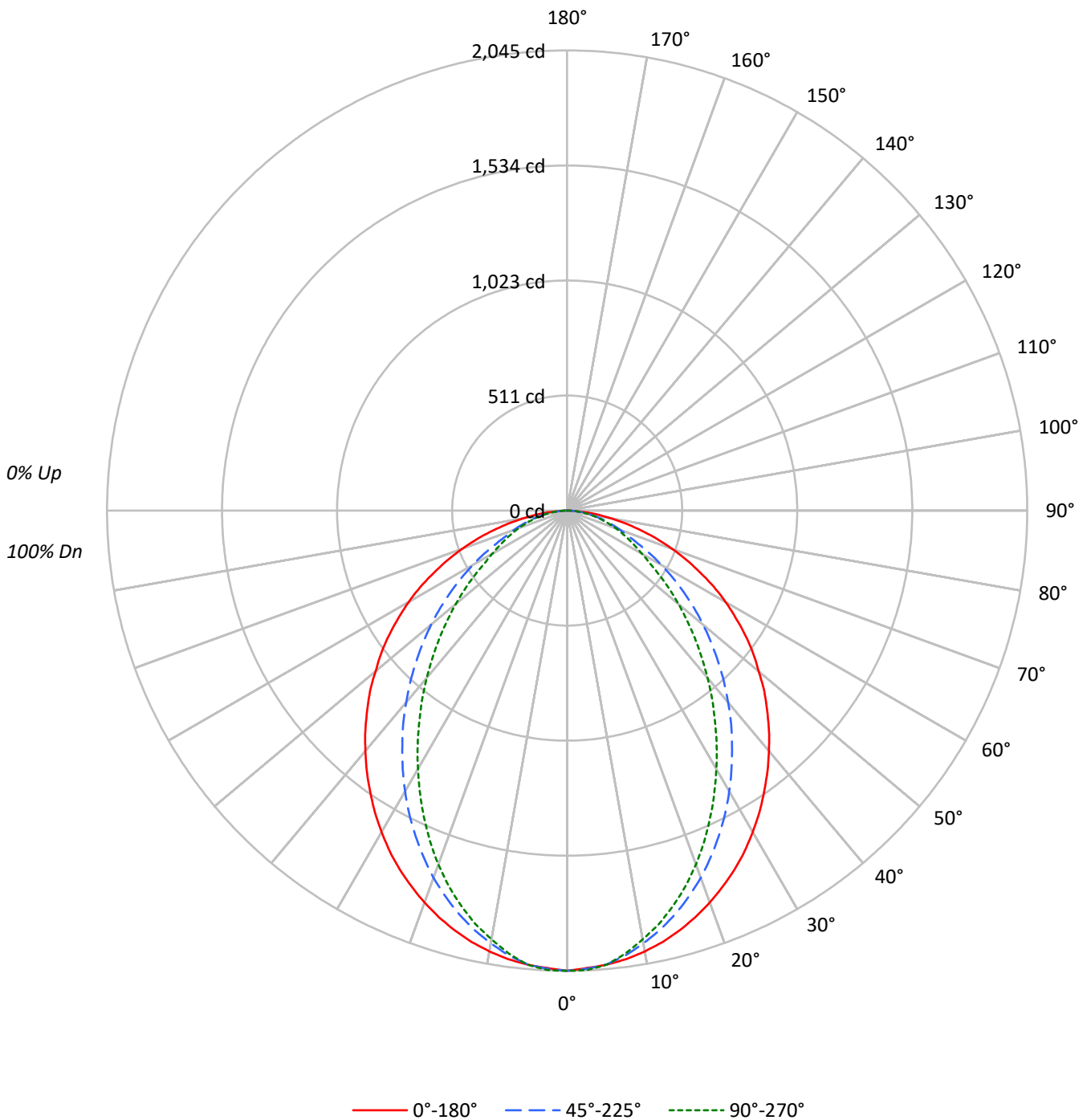
Lumens per Lamp: N/A
Luminaire Lumens: 4335.2 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					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°	14460	14460	14460
5°	14374	14364	14374
10°	14279	14016	13885
15°	14134	13588	13309
20°	13944	13062	12592
25°	13733	12438	11738
30°	13464	11761	10829
35°	13170	11028	9884
40°	12874	10274	8953
45°	12562	9486	8024
50°	12228	8676	7102
55°	11920	7791	6176
60°	11499	6847	5426
65°	10930	5809	5045
70°	10262	5194	4723
75°	9276	4783	4452
80°	8061	4340	4152
85°	6302	3828	3828

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12562 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.4	4.4
10°-20°	525.5	12.1
20°-30°	742.3	17.1
30°-40°	817.2	18.8
40°-50°	762.2	17.6
50°-60°	608.5	14.0
60°-70°	409.5	9.4
70°-80°	218.1	5.0
80°-90°	60.6	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°	1459.1	33.7
0°-40°	2276.3	52.5
0°-60°	3647.0	84.1
0°-90°	4335.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4335.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2045	2045	2045	2045	2045	
5°	2026	2042	2024	2018	2026	192
15°	1931	1920	1857	1825	1818	544
25°	1761	1707	1595	1525	1505	810
35°	1526	1436	1278	1177	1145	955
45°	1256	1138	949	833	803	970
55°	967	821	632	532	501	863
65°	653	510	347	308	302	648
75°	340	225	175	164	163	362
85°	78	53	47	49	47	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2045.4	2045.4	2045.4	2045.4	2045.4
2.5°	2034.8	2051.5	2037.8	2040.9	2043.9
5°	2025.6	2042.4	2024.1	2018.0	2025.6
7.5°	2010.4	2024.1	1993.6	1979.9	1986.0
10°	1989.1	1998.2	1952.5	1934.3	1934.3
12.5°	1963.2	1963.2	1908.4	1882.5	1882.5
15°	1931.2	1920.5	1856.6	1824.6	1818.5
17.5°	1894.7	1874.9	1798.7	1757.6	1750.0
20°	1853.5	1821.5	1736.3	1683.0	1673.8
22.5°	1807.8	1766.7	1667.7	1602.2	1591.6
25°	1760.6	1707.3	1594.6	1524.6	1504.8
27.5°	1707.3	1643.4	1520.0	1440.8	1416.4
30°	1649.4	1576.3	1440.8	1352.5	1326.6
32.5°	1590.0	1507.8	1360.1	1265.6	1236.7
35°	1526.1	1436.2	1277.8	1177.3	1145.3
37.5°	1462.1	1364.6	1197.1	1092.0	1058.5
40°	1395.1	1288.5	1113.3	1005.2	970.2
42.5°	1328.1	1213.9	1031.1	921.4	884.9
45°	1256.5	1137.7	948.8	833.1	802.6
47.5°	1188.0	1060.0	868.1	755.4	721.9
50°	1111.8	979.3	788.9	676.2	645.8
52.5°	1041.8	900.1	709.7	604.6	572.7
55°	967.1	820.9	632.1	531.5	501.1
57.5°	889.5	741.7	557.4	463.0	434.1
60°	813.3	662.5	484.3	397.5	383.8
62.5°	735.6	587.9	415.8	348.8	339.6
65°	653.4	510.2	347.3	307.7	301.6
67.5°	575.7	435.6	292.4	269.6	263.5
70°	496.5	361.0	251.3	231.5	228.5
72.5°	418.8	289.4	211.7	198.0	194.9
75°	339.6	225.4	175.1	164.5	163.0
77.5°	266.5	169.1	138.6	134.0	131.0
80°	198.0	126.4	106.6	103.6	102.0
82.5°	135.5	86.8	76.2	76.2	73.1
85°	77.7	53.3	47.2	48.7	47.2
87.5°	28.9	22.8	21.3	22.8	22.8
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	20.57	22.11	20.93	22.42	22.74	16.95	18.49	17.32	18.81	19.12
	3H	22.35	23.74	22.73	24.07	24.43	18.43	19.81	18.81	20.14	20.50
	4H	23.01	24.31	23.41	24.66	25.03	19.02	20.32	19.42	20.67	21.04
	6H	23.48	24.69	23.90	25.05	25.44	19.48	20.68	19.89	21.05	21.44
	8H	23.64	24.78	24.06	25.17	25.57	19.64	20.79	20.07	21.17	21.58
	12H	23.73	24.83	24.16	25.21	25.64	19.76	20.85	20.19	21.23	21.66
4H	2H	20.70	22.00	21.10	22.35	22.73	17.63	18.93	18.03	19.28	19.65
	3H	22.67	23.76	23.08	24.15	24.56	19.31	20.39	19.72	20.79	21.19
	4H	23.42	24.39	23.85	24.81	25.25	20.01	20.98	20.44	21.40	21.84
	6H	24.01	24.86	24.47	25.30	25.76	20.60	21.44	21.05	21.89	22.34
	8H	24.22	25.01	24.68	25.46	25.92	20.80	21.60	21.27	22.04	22.51
	12H	24.37	25.08	24.85	25.55	26.03	20.96	21.67	21.45	22.15	22.62
8H	4H	23.48	24.28	23.95	24.72	25.19	20.37	21.17	20.84	21.61	22.08
	6H	24.14	24.80	24.64	25.29	25.77	21.08	21.73	21.57	22.22	22.70
	8H	24.40	24.99	24.91	25.49	25.98	21.36	21.95	21.87	22.46	22.95
	12H	24.60	25.13	25.11	25.62	26.18	21.60	22.12	22.11	22.61	23.18
12H	4H	23.48	24.19	23.96	24.66	25.13	20.42	21.13	20.90	21.61	22.08
	6H	24.14	24.73	24.65	25.24	25.72	21.15	21.74	21.66	22.25	22.73
	8H	24.43	24.95	24.94	25.44	26.01	21.49	22.01	22.00	22.50	23.07