

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: P1056525

Luminaire Tested: S125R3DR-H1270D835-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056525
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-H1270D835-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

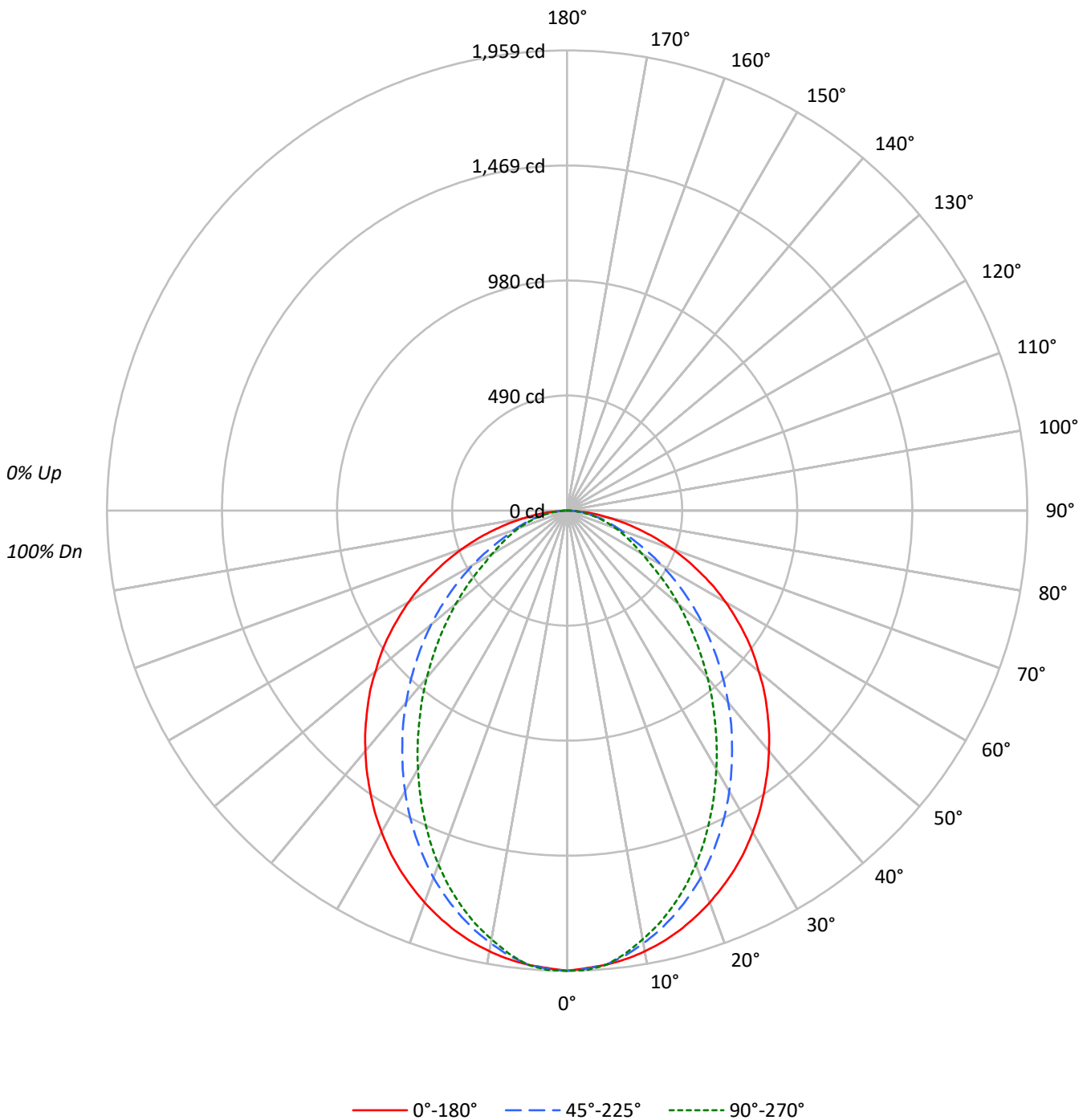
Lumens per Lamp: N/A
Luminaire Lumens: 4152.7 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	13851	13851	13851
5°	13769	13759	13769
10°	13677	13426	13300
15°	13539	13016	12748
20°	13357	12512	12062
25°	13155	11915	11243
30°	12897	11266	10373
35°	12615	10563	9468
40°	12332	9841	8576
45°	12033	9087	7686
50°	11713	8311	6803
55°	11418	7462	5916
60°	11014	6559	5197
65°	10470	5564	4833
70°	9830	4975	4522
75°	8885	4583	4264
80°	7723	4157	3977
85°	6035	3666	3666

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12033 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.3	4.4
10°-20°	503.4	12.1
20°-30°	711.0	17.1
30°-40°	782.7	18.8
40°-50°	730.1	17.6
50°-60°	582.9	14.0
60°-70°	392.2	9.4
70°-80°	208.9	5.0
80°-90°	58.1	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°	1397.7	33.7
0°-40°	2180.4	52.5
0°-60°	3493.4	84.1
0°-90°	4152.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4152.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1959	1959	1959	1959	1959	
5°	1940	1956	1939	1933	1940	184
15°	1850	1840	1778	1748	1742	522
25°	1686	1635	1528	1460	1441	776
35°	1462	1376	1224	1128	1097	915
45°	1204	1090	909	798	769	929
55°	926	786	605	509	480	827
65°	626	489	333	295	289	621
75°	325	216	168	158	156	347
85°	74	51	45	47	45	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1959.3	1959.3	1959.3	1959.3	1959.3
2.5°	1949.1	1965.1	1952.0	1954.9	1957.8
5°	1940.3	1956.4	1938.9	1933.0	1940.3
7.5°	1925.7	1938.9	1909.7	1896.5	1902.4
10°	1905.3	1914.1	1870.3	1852.8	1852.8
12.5°	1880.5	1880.5	1828.0	1803.2	1803.2
15°	1849.9	1839.7	1778.4	1747.7	1741.9
17.5°	1814.9	1795.9	1722.9	1683.6	1676.3
20°	1775.5	1744.8	1663.1	1612.1	1603.3
22.5°	1731.7	1692.3	1597.5	1534.7	1524.5
25°	1686.5	1635.4	1527.5	1460.3	1441.4
27.5°	1635.4	1574.1	1456.0	1380.1	1356.8
30°	1580.0	1509.9	1380.1	1295.5	1270.7
32.5°	1523.1	1444.3	1302.8	1212.3	1184.6
35°	1461.8	1375.7	1224.0	1127.7	1097.1
37.5°	1400.5	1307.2	1146.7	1046.0	1013.9
40°	1336.3	1234.2	1066.4	962.9	929.3
42.5°	1272.1	1162.7	987.7	882.6	847.6
45°	1203.6	1089.8	908.9	798.0	768.8
47.5°	1137.9	1015.4	831.6	723.6	691.5
50°	1065.0	938.1	755.7	647.7	618.6
52.5°	997.9	862.2	679.8	579.2	548.5
55°	926.4	786.3	605.4	509.2	480.0
57.5°	852.0	710.5	534.0	443.5	415.8
60°	779.0	634.6	463.9	380.8	367.6
62.5°	704.6	563.1	398.3	334.1	325.3
65°	625.9	488.7	332.6	294.7	288.9
67.5°	551.5	417.2	280.1	258.2	252.4
70°	475.6	345.8	240.7	221.8	218.8
72.5°	401.2	277.2	202.8	189.7	186.7
75°	325.3	215.9	167.8	157.6	156.1
77.5°	255.3	161.9	132.8	128.4	125.5
80°	189.7	121.1	102.1	99.2	97.7
82.5°	129.8	83.2	72.9	72.9	70.0
85°	74.4	51.1	45.2	46.7	45.2
87.5°	27.7	21.9	20.4	21.9	21.9
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	20.42	21.96	20.79	22.27	22.59	16.80	18.34	17.17	18.66	18.97
	3H	22.21	23.59	22.58	23.92	24.28	18.28	19.66	18.66	19.99	20.35
	4H	22.86	24.16	23.26	24.51	24.88	18.87	20.17	19.27	20.52	20.89
	6H	23.34	24.54	23.75	24.90	25.29	19.33	20.53	19.74	20.90	21.29
	8H	23.49	24.63	23.92	25.02	25.42	19.49	20.64	19.92	21.03	21.43
	12H	23.58	24.68	24.02	25.06	25.49	19.61	20.70	20.04	21.08	21.51
4H	2H	20.55	21.85	20.95	22.20	22.58	17.48	18.78	17.88	19.13	19.50
	3H	22.53	23.61	22.94	24.01	24.41	19.16	20.24	19.57	20.64	21.04
	4H	23.27	24.24	23.70	24.66	25.10	19.86	20.83	20.29	21.25	21.69
	6H	23.86	24.71	24.32	25.15	25.61	20.45	21.29	20.90	21.74	22.19
	8H	24.07	24.86	24.53	25.31	25.77	20.65	21.45	21.12	21.89	22.36
	12H	24.22	24.93	24.70	25.41	25.88	20.81	21.52	21.30	22.00	22.47
8H	4H	23.33	24.13	23.80	24.57	25.04	20.22	21.02	20.69	21.46	21.93
	6H	23.99	24.65	24.49	25.14	25.62	20.93	21.58	21.42	22.07	22.55
	8H	24.25	24.84	24.76	25.34	25.83	21.21	21.80	21.72	22.31	22.80
	12H	24.46	24.98	24.96	25.47	26.03	21.45	21.97	21.96	22.46	23.03
12H	4H	23.33	24.04	23.81	24.51	24.98	20.27	20.98	20.75	21.46	21.93
	6H	23.99	24.58	24.50	25.09	25.57	21.00	21.59	21.51	22.10	22.58
	8H	24.28	24.80	24.79	25.29	25.86	21.34	21.86	21.85	22.35	22.92