

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P930591

Luminaire Tested: DFN2DS-PN3F0-070DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN3F0-070DS935-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

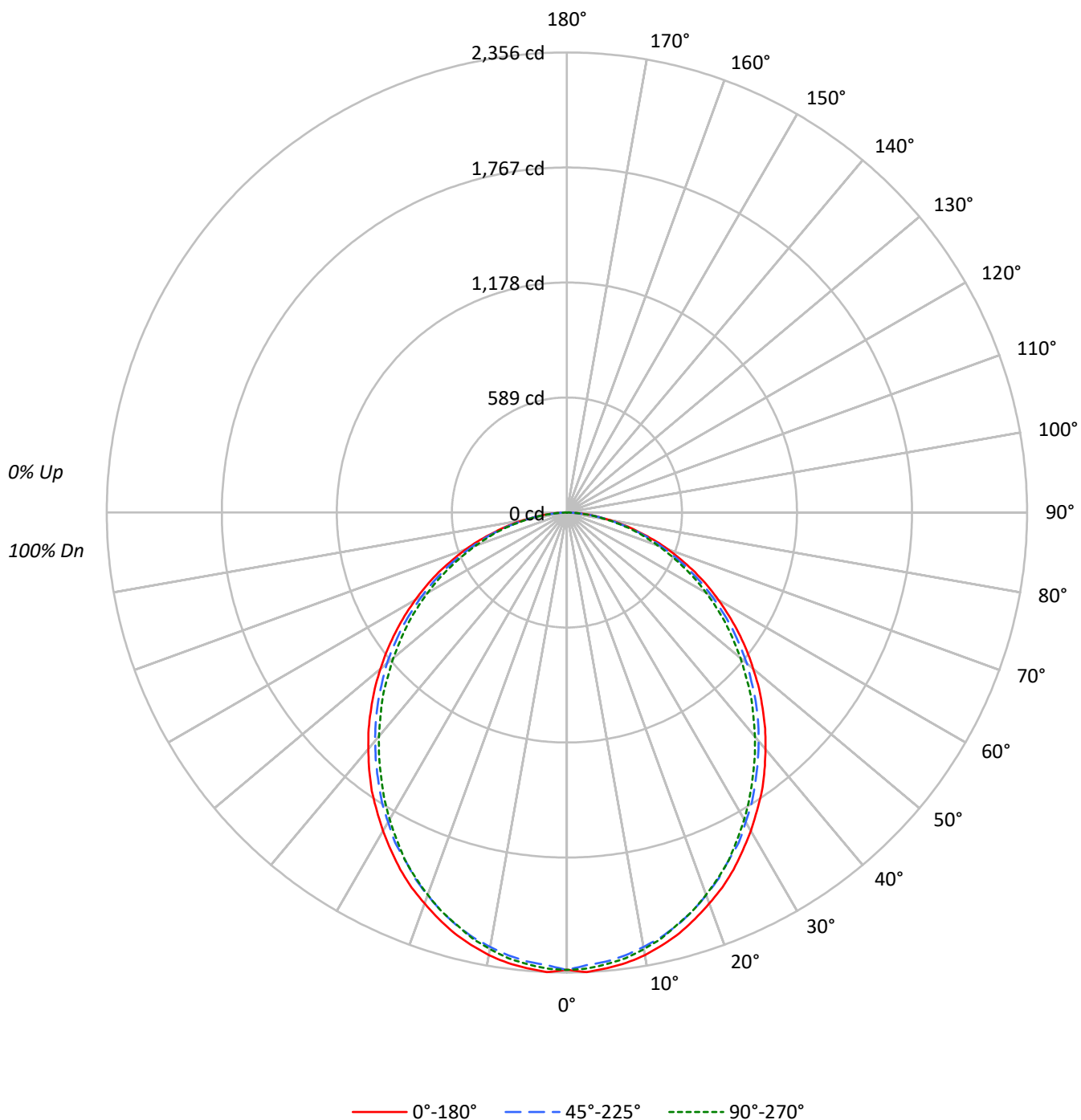
Lumens per Lamp: N/A
Luminaire Lumens: 5959.8 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 73.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.946
Total Harmonic Distortion (THDi): 0.132
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2738	2738	2738
5°	2749	2709	2725
10°	2733	2682	2695
15°	2699	2647	2644
20°	2650	2595	2592
25°	2603	2531	2531
30°	2542	2472	2451
35°	2485	2401	2366
40°	2413	2330	2286
45°	2342	2260	2204
50°	2265	2187	2110
55°	2185	2103	2025
60°	2096	2001	1928
65°	2000	1901	1813
70°	1878	1778	1694
75°	1709	1637	1598
80°	1517	1470	1395
85°	1238	1180	1058

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 2342 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.5	3.7
10°-20°	620.3	10.4
20°-30°	911.6	15.3
30°-40°	1058.8	17.8
40°-50°	1057.5	17.7
50°-60°	922.1	15.5
60°-70°	681.6	11.4
70°-80°	385.7	6.5
80°-90°	101.8	1.7
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°	1752.4	29.4
0°-40°	2811.2	47.2
0°-60°	4790.7	80.4
0°-90°	5959.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5959.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2342	2342	2342	2342	2342	
5°	2342	2334	2309	2327	2322	222
15°	2230	2216	2187	2196	2185	628
25°	2018	2000	1962	1966	1962	929
35°	1741	1719	1683	1669	1658	1087
45°	1417	1401	1367	1342	1333	1093
55°	1072	1059	1032	1005	993	959
65°	723	710	687	667	656	715
75°	378	374	362	349	354	404
85°	92	90	88	81	79	108
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2342.4	2342.4	2342.4	2342.4	2342.4
2.5°	2356.1	2344.8	2319.9	2342.4	2338.1
5°	2342.4	2333.6	2308.8	2326.6	2322.3
7.5°	2326.6	2313.2	2288.4	2306.6	2302.0
10°	2302.0	2286.2	2259.2	2277.2	2270.5
12.5°	2268.1	2254.7	2227.7	2238.9	2234.4
15°	2229.9	2216.5	2187.1	2196.2	2184.9
17.5°	2182.5	2169.2	2139.8	2151.0	2139.8
20°	2130.6	2117.3	2085.8	2092.5	2083.6
22.5°	2079.0	2058.8	2029.3	2029.3	2024.8
25°	2018.2	2000.2	1962.0	1966.3	1962.0
27.5°	1950.5	1934.7	1905.6	1898.9	1887.6
30°	1883.1	1864.9	1831.3	1824.6	1815.5
32.5°	1810.9	1797.6	1761.5	1747.9	1738.7
35°	1741.2	1718.7	1682.6	1669.0	1657.7
37.5°	1662.3	1642.0	1605.9	1590.1	1578.9
40°	1581.3	1563.1	1527.0	1507.0	1497.9
42.5°	1502.4	1484.3	1448.4	1425.7	1412.3
45°	1416.8	1401.1	1367.1	1342.5	1333.4
47.5°	1333.4	1317.7	1281.6	1256.7	1243.4
50°	1245.5	1234.3	1202.7	1171.2	1160.0
52.5°	1160.0	1144.2	1115.1	1090.2	1074.4
55°	1072.2	1058.7	1031.7	1004.7	993.4
57.5°	984.4	973.1	943.7	916.7	907.6
60°	896.4	887.5	856.0	831.2	824.5
62.5°	810.8	795.1	772.6	750.2	741.1
65°	723.2	709.5	687.1	666.8	655.5
67.5°	633.0	621.6	601.5	585.7	576.6
70°	549.6	540.6	520.2	504.5	495.6
72.5°	464.1	455.0	443.8	428.0	421.3
75°	378.3	374.0	362.5	349.2	353.7
77.5°	301.9	292.7	288.2	281.5	274.9
80°	225.3	223.0	218.4	211.7	207.2
82.5°	153.2	153.2	151.0	142.0	142.0
85°	92.3	90.1	88.0	81.0	78.9
87.5°	40.6	36.1	31.6	24.9	22.4
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	14.78	16.39	15.15	16.71	17.02	14.34	15.95	14.70	16.26	16.58
	3H	16.53	17.99	16.91	18.31	18.67	16.04	17.50	16.42	17.82	18.18
	4H	17.18	18.55	17.58	18.90	19.27	16.68	18.05	17.08	18.40	18.78
	6H	17.65	18.92	18.06	19.28	19.67	17.15	18.42	17.56	18.78	19.17
	8H	17.79	19.00	18.22	19.39	19.79	17.29	18.50	17.71	18.89	19.29
	12H	17.88	19.04	18.31	19.42	19.85	17.37	18.53	17.80	18.91	19.34
4H	2H	15.34	16.71	15.74	17.06	17.44	14.99	16.36	15.39	16.71	17.08
	3H	17.32	18.46	17.73	18.86	19.26	16.91	18.06	17.32	18.46	18.86
	4H	18.09	19.13	18.53	19.54	19.98	17.67	18.71	18.10	19.12	19.56
	6H	18.69	19.60	19.15	20.04	20.49	18.26	19.16	18.71	19.60	20.06
	8H	18.88	19.73	19.34	20.17	20.63	18.44	19.29	18.90	19.73	20.20
	12H	19.01	19.77	19.49	20.25	20.72	18.56	19.32	19.04	19.80	20.27
8H	4H	18.37	19.21	18.83	19.66	20.12	17.99	18.84	18.45	19.28	19.75
	6H	19.08	19.79	19.58	20.27	20.75	18.70	19.40	19.19	19.89	20.37
	8H	19.34	19.97	19.85	20.48	20.96	18.95	19.58	19.46	20.09	20.57
	12H	19.54	20.10	20.05	20.59	21.15	19.13	19.69	19.64	20.18	20.74
12H	4H	18.39	19.15	18.87	19.63	20.10	18.03	18.79	18.51	19.26	19.73
	6H	19.13	19.76	19.64	20.27	20.75	18.76	19.39	19.27	19.90	20.38
	8H	19.44	20.00	19.95	20.49	21.05	19.06	19.62	19.57	20.11	20.67