

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: P931401

Luminaire Tested: DFN2DS-TR3F0-070DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931401
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-TR3F0-070DS935-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

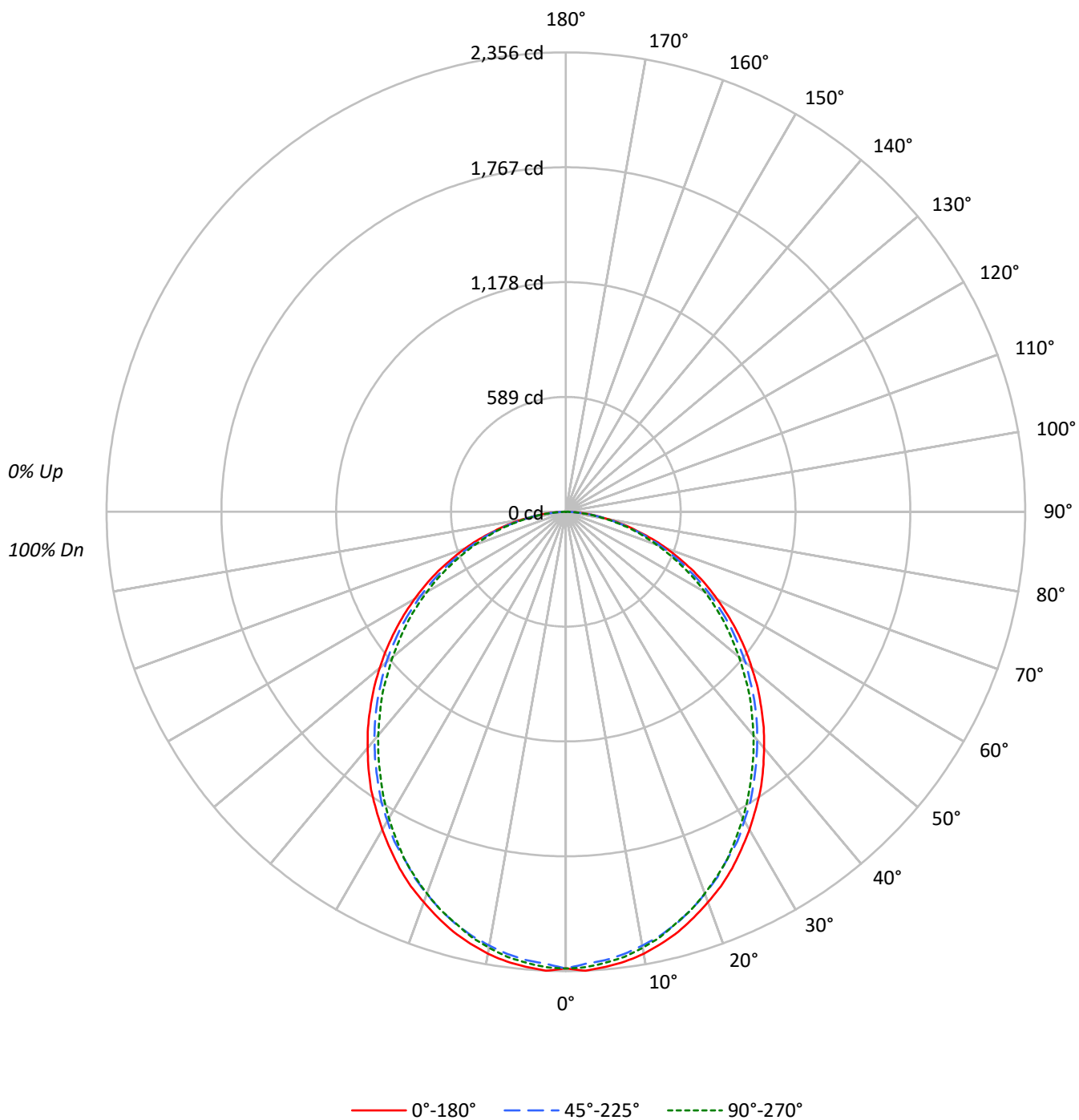
Lumens per Lamp: N/A
Luminaire Lumens: 5959.8 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 74.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9971
Total Harmonic Distortion (THDi): 0.049
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°	2919	2919	2919
5°	2930	2888	2905
10°	2913	2859	2873
15°	2877	2821	2819
20°	2825	2766	2763
25°	2775	2698	2698
30°	2710	2635	2612
35°	2649	2560	2522
40°	2572	2484	2437
45°	2497	2409	2350
50°	2415	2332	2249
55°	2329	2241	2158
60°	2234	2133	2055
65°	2132	2026	1933
70°	2002	1895	1806
75°	1821	1745	1703
80°	1617	1567	1487
85°	1320	1258	1128

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2497 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	15.00	16.62	15.37	16.93	17.24	14.56	16.17	14.92	16.48	16.80
	3H	16.75	18.21	17.13	18.54	18.90	16.26	17.72	16.64	18.04	18.40
	4H	17.40	18.77	17.80	19.12	19.49	16.91	18.27	17.30	18.62	19.00
	6H	17.87	19.14	18.28	19.50	19.89	17.37	18.64	17.78	19.00	19.39
	8H	18.01	19.22	18.44	19.61	20.01	17.51	18.72	17.93	19.11	19.51
	12H	18.10	19.26	18.53	19.65	20.07	17.59	18.75	18.02	19.13	19.56
4H	2H	15.56	16.93	15.96	17.28	17.66	15.21	16.58	15.61	16.93	17.30
	3H	17.54	18.69	17.95	19.08	19.48	17.13	18.28	17.54	18.68	19.08
	4H	18.32	19.35	18.75	19.77	20.20	17.89	18.93	18.32	19.34	19.78
	6H	18.91	19.82	19.37	20.26	20.71	18.48	19.39	18.93	19.83	20.28
	8H	19.10	19.95	19.56	20.39	20.86	18.66	19.51	19.13	19.95	20.42
	12H	19.23	19.99	19.71	20.47	20.94	18.78	19.54	19.26	20.02	20.49
8H	4H	18.59	19.44	19.05	19.88	20.34	18.22	19.06	18.68	19.50	19.97
	6H	19.30	20.01	19.80	20.50	20.97	18.92	19.63	19.42	20.11	20.59
	8H	19.56	20.19	20.07	20.70	21.19	19.17	19.80	19.68	20.31	20.80
	12H	19.76	20.32	20.27	20.81	21.37	19.35	19.91	19.86	20.40	20.96
12H	4H	18.62	19.38	19.10	19.85	20.32	18.25	19.01	18.73	19.49	19.96
	6H	19.35	19.98	19.86	20.49	20.97	18.98	19.61	19.49	20.12	20.61
	8H	19.66	20.22	20.17	20.71	21.27	19.29	19.84	19.79	20.33	20.90