

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: P930585

Luminaire Tested: DFN2DS-PN3F0-070DS850-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930585
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-PN3F0-070DS850-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

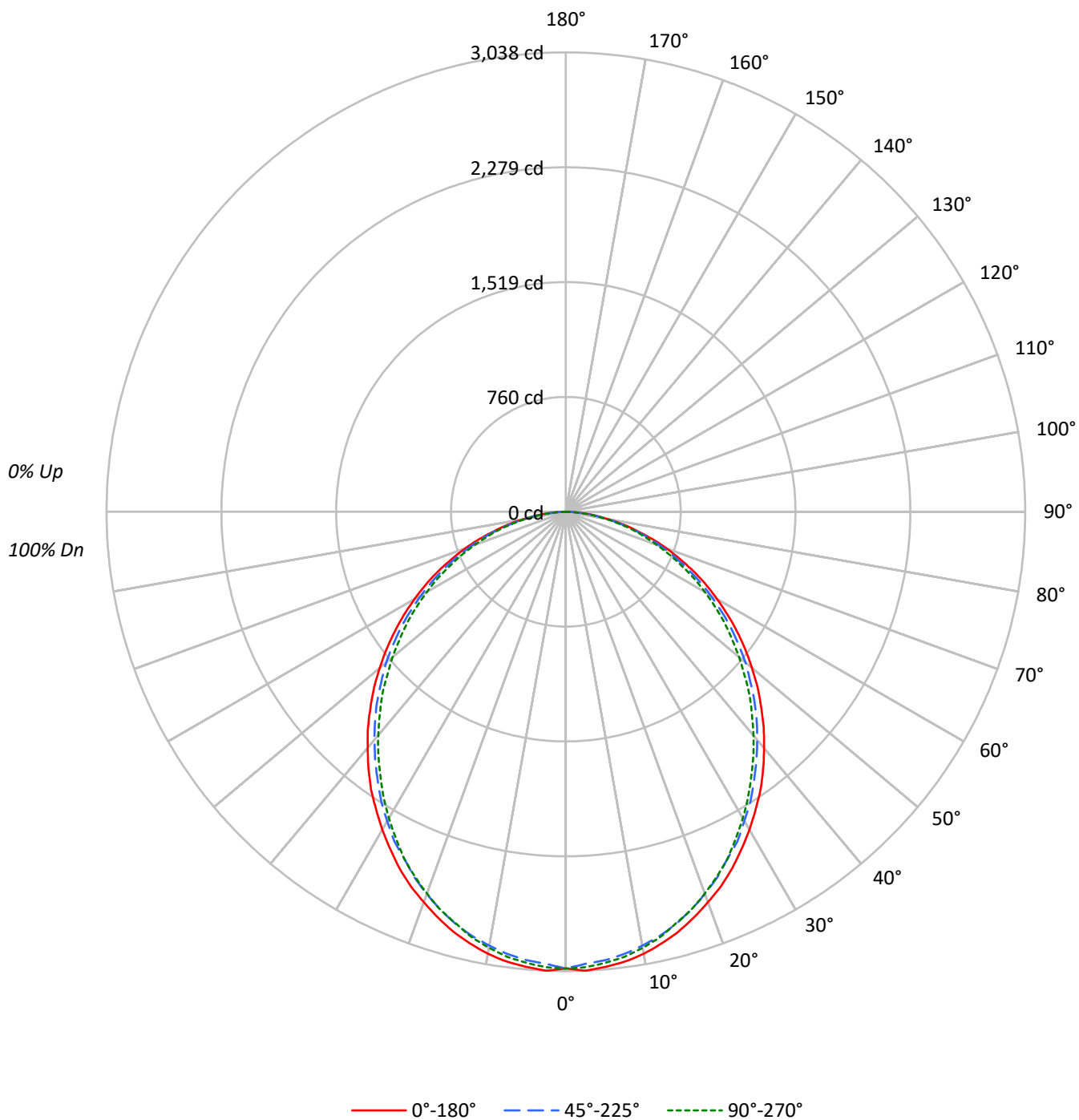
Lumens per Lamp: N/A
Luminaire Lumens: 7685.4 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P930585

CATALOG NUMBER: DFN2DS-PN3F0-070DS850-FLL

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°	3531	3531	3531
5°	3545	3494	3514
10°	3524	3458	3475
15°	3480	3413	3410
20°	3418	3346	3343
25°	3357	3263	3263
30°	3278	3188	3160
35°	3204	3096	3051
40°	3112	3005	2947
45°	3021	2915	2843
50°	2921	2820	2720
55°	2818	2711	2611
60°	2702	2581	2486
65°	2580	2451	2338
70°	2423	2293	2184
75°	2203	2111	2060
80°	1956	1896	1799
85°	1596	1522	1364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3021 cd/sqm

TEST NUMBER: P930585

CATALOG NUMBER: DFN2DS-PN3F0-070DS850-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.3	3.7
10°-20°	799.9	10.4
20°-30°	1175.6	15.3
30°-40°	1365.3	17.8
40°-50°	1363.6	17.7
50°-60°	1189.1	15.5
60°-70°	879.0	11.4
70°-80°	497.3	6.5
80°-90°	131.3	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°	2259.8	29.4
0°-40°	3625.1	47.2
0°-60°	6177.8	80.4
0°-90°	7685.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7685.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3021	3021	3021	3021	3021	
5°	3021	3009	2977	3000	2995	287
15°	2876	2858	2820	2832	2818	810
25°	2602	2579	2530	2536	2530	1198
35°	2245	2216	2170	2152	2138	1402
45°	1827	1807	1763	1731	1720	1410
55°	1383	1365	1330	1296	1281	1236
65°	933	915	886	860	845	922
75°	488	482	467	450	456	521
85°	119	116	114	104	102	140
90°	0	0	0	0	0	

TEST NUMBER: P930585

CATALOG NUMBER: DFN2DS-PN3F0-070DS850-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3020.6	3020.6	3020.6	3020.6	3020.6
2.5°	3038.2	3023.7	2991.6	3020.6	3015.0
5°	3020.6	3009.3	2977.2	3000.3	2994.7
7.5°	3000.3	2983.0	2950.9	2974.4	2968.6
10°	2968.6	2948.2	2913.3	2936.5	2927.9
12.5°	2924.8	2907.6	2872.8	2887.2	2881.3
15°	2875.5	2858.2	2820.3	2832.1	2817.5
17.5°	2814.4	2797.2	2759.3	2773.8	2759.3
20°	2747.5	2730.4	2689.7	2698.3	2686.9
22.5°	2681.0	2654.8	2616.9	2616.9	2611.0
25°	2602.5	2579.3	2530.1	2535.6	2530.1
27.5°	2515.2	2494.9	2457.3	2448.7	2434.1
30°	2428.4	2404.9	2361.5	2352.9	2341.1
32.5°	2335.2	2318.0	2271.5	2253.9	2242.2
35°	2245.3	2216.3	2169.8	2152.2	2137.7
37.5°	2143.6	2117.4	2070.8	2050.5	2036.0
40°	2039.1	2015.7	1969.1	1943.3	1931.5
42.5°	1937.4	1914.0	1867.8	1838.5	1821.2
45°	1827.1	1806.8	1763.0	1731.3	1719.5
47.5°	1719.5	1699.2	1652.6	1620.6	1603.4
50°	1606.2	1591.6	1550.9	1510.3	1495.8
52.5°	1495.8	1475.5	1437.9	1405.9	1385.5
55°	1382.7	1365.2	1330.4	1295.5	1281.0
57.5°	1269.4	1254.8	1216.9	1182.1	1170.4
60°	1155.9	1144.5	1103.9	1071.8	1063.2
62.5°	1045.6	1025.3	996.3	967.4	955.6
65°	932.6	914.9	886.0	859.8	845.3
67.5°	816.3	801.6	775.6	755.3	743.6
70°	708.8	697.1	670.8	650.5	639.1
72.5°	598.4	586.8	572.2	551.9	543.3
75°	487.8	482.3	467.4	450.3	456.1
77.5°	389.3	377.5	371.6	363.0	354.4
80°	290.6	287.6	281.7	273.0	267.2
82.5°	197.5	197.5	194.7	183.1	183.1
85°	119.0	116.2	113.5	104.5	101.7
87.5°	52.3	46.6	40.7	32.1	28.9
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	15.67	17.28	16.03	17.59	17.90	15.22	16.83	15.59	17.15	17.46
	3H	17.42	18.87	17.79	19.20	19.56	16.92	18.38	17.30	18.71	19.07
	4H	18.06	19.43	18.46	19.78	20.16	17.57	18.94	17.97	19.28	19.66
	6H	18.53	19.80	18.94	20.16	20.56	18.03	19.30	18.44	19.66	20.05
	8H	18.67	19.89	19.10	20.27	20.67	18.17	19.38	18.60	19.77	20.17
	12H	18.76	19.92	19.19	20.31	20.74	18.25	19.41	18.68	19.79	20.22
4H	2H	16.23	17.60	16.62	17.94	18.32	15.87	17.24	16.27	17.59	17.97
	3H	18.20	19.35	18.61	19.75	20.15	17.79	18.94	18.20	19.34	19.74
	4H	18.98	20.01	19.41	20.43	20.86	18.55	19.59	18.99	20.00	20.44
	6H	19.57	20.48	20.03	20.92	21.38	19.14	20.05	19.60	20.49	20.94
	8H	19.76	20.61	20.22	21.05	21.52	19.33	20.17	19.79	20.61	21.08
	12H	19.90	20.66	20.38	21.13	21.60	19.44	20.20	19.92	20.68	21.15
8H	4H	19.25	20.10	19.71	20.54	21.01	18.88	19.72	19.34	20.17	20.63
	6H	19.97	20.67	20.46	21.16	21.63	19.58	20.29	20.08	20.78	21.25
	8H	20.22	20.86	20.73	21.36	21.85	19.83	20.46	20.34	20.97	21.46
	12H	20.42	20.98	20.93	21.47	22.03	20.01	20.57	20.52	21.06	21.62
12H	4H	19.28	20.04	19.76	20.51	20.98	18.91	19.67	19.39	20.15	20.62
	6H	20.01	20.64	20.52	21.15	21.64	19.64	20.27	20.15	20.78	21.27
	8H	20.32	20.88	20.83	21.37	21.93	19.95	20.50	20.45	21.00	21.56