

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: P930607

Luminaire Tested: DFN2DS-PN3F0-080DS930-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930607
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-PN3F0-080DS930-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

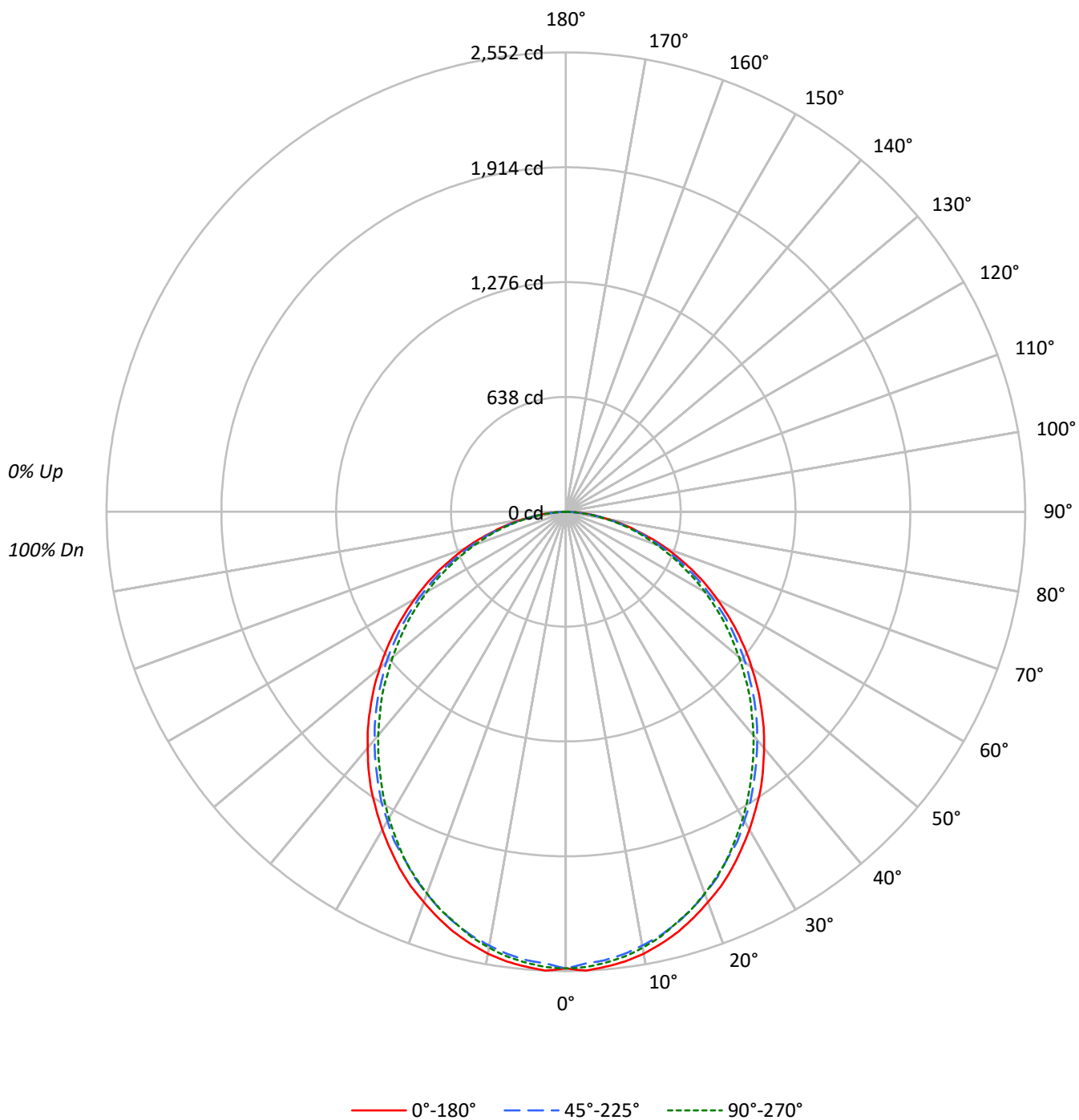
Lumens per Lamp: N/A
Luminaire Lumens: 6454.8 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 84.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9967
Total Harmonic Distortion (THDi): 0.063
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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2966	2966	2966
5°	2977	2934	2952
10°	2959	2905	2919
15°	2923	2867	2864
20°	2871	2810	2807
25°	2819	2741	2741
30°	2753	2677	2654
35°	2691	2601	2562
40°	2613	2524	2476
45°	2537	2448	2388
50°	2453	2369	2285
55°	2367	2277	2193
60°	2270	2168	2088
65°	2166	2058	1964
70°	2035	1926	1835
75°	1850	1774	1730
80°	1643	1593	1511
85°	1340	1278	1145

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2537 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.8	3.7
10°-20°	671.8	10.4
20°-30°	987.3	15.3
30°-40°	1146.7	17.8
40°-50°	1145.3	17.7
50°-60°	998.7	15.5
60°-70°	738.2	11.4
70°-80°	417.7	6.5
80°-90°	110.2	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°	1898.0	29.4
0°-40°	3044.7	47.2
0°-60°	5188.6	80.4
0°-90°	6454.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6454.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2537	2537	2537	2537	2537	
5°	2537	2527	2500	2520	2515	241
15°	2415	2401	2369	2379	2366	680
25°	2186	2166	2125	2130	2125	1006
35°	1886	1862	1822	1808	1795	1178
45°	1535	1517	1481	1454	1444	1184
55°	1161	1146	1117	1088	1076	1038
65°	783	768	744	722	710	774
75°	410	405	393	378	383	437
85°	100	98	95	88	85	117
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2536.9	2536.9	2536.9	2536.9	2536.9
2.5°	2551.7	2539.5	2512.6	2536.9	2532.3
5°	2536.9	2527.4	2500.5	2519.9	2515.3
7.5°	2519.9	2505.4	2478.5	2498.1	2493.2
10°	2493.2	2476.1	2446.9	2466.3	2459.1
12.5°	2456.5	2442.0	2412.7	2424.9	2420.0
15°	2415.1	2400.6	2368.7	2378.6	2366.4
17.5°	2363.8	2349.3	2317.5	2329.7	2317.5
20°	2307.7	2293.2	2259.0	2266.3	2256.7
22.5°	2251.8	2229.8	2197.9	2197.9	2193.0
25°	2185.7	2166.4	2124.9	2129.6	2124.9
27.5°	2112.5	2095.4	2063.8	2056.6	2044.4
30°	2039.5	2019.8	1983.4	1976.1	1966.3
32.5°	1961.4	1946.9	1907.8	1893.0	1883.2
35°	1885.7	1861.5	1822.3	1807.6	1795.4
37.5°	1800.3	1778.3	1739.3	1722.2	1710.0
40°	1712.6	1692.9	1653.9	1632.1	1622.3
42.5°	1627.2	1607.5	1568.7	1544.1	1529.7
45°	1534.6	1517.4	1480.7	1454.0	1444.3
47.5°	1444.3	1427.1	1388.0	1361.1	1346.6
50°	1349.0	1336.8	1302.6	1268.5	1256.3
52.5°	1256.3	1239.2	1207.7	1180.8	1163.7
55°	1161.3	1146.5	1117.4	1088.1	1075.9
57.5°	1066.1	1054.0	1022.1	992.8	983.0
60°	970.8	961.3	927.1	900.2	892.9
62.5°	878.2	861.1	836.8	812.5	802.6
65°	783.2	768.5	744.1	722.1	709.9
67.5°	685.6	673.2	651.4	634.4	624.5
70°	595.3	585.4	563.5	546.4	536.8
72.5°	502.6	492.8	480.6	463.6	456.3
75°	409.7	405.1	392.7	378.2	383.0
77.5°	326.9	317.0	312.1	304.9	297.6
80°	244.1	241.5	236.6	229.3	224.4
82.5°	165.9	165.9	163.6	153.7	153.7
85°	99.9	97.6	95.3	87.8	85.4
87.5°	44.0	39.1	34.1	26.9	24.4
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	15.06	16.67	15.42	16.98	17.30	14.62	16.23	14.98	16.54	16.85
	3H	16.81	18.26	17.19	18.59	18.95	16.32	17.77	16.70	18.10	18.46
	4H	17.46	18.83	17.85	19.17	19.55	16.96	18.33	17.36	18.68	19.05
	6H	17.93	19.19	18.34	19.56	19.95	17.42	18.69	17.83	19.06	19.45
	8H	18.07	19.28	18.49	19.67	20.07	17.56	18.78	17.99	19.16	19.56
	12H	18.16	19.32	18.59	19.70	20.13	17.65	18.81	18.08	19.19	19.62
4H	2H	15.62	16.99	16.02	17.34	17.71	15.27	16.64	15.67	16.98	17.36
	3H	17.60	18.74	18.00	19.14	19.54	17.19	18.33	17.60	18.73	19.13
	4H	18.37	19.41	18.80	19.82	20.26	17.95	18.98	18.38	19.40	19.83
	6H	18.97	19.87	19.42	20.31	20.77	18.54	19.44	18.99	19.88	20.34
	8H	19.16	20.00	19.62	20.45	20.91	18.72	19.57	19.18	20.01	20.47
	12H	19.29	20.05	19.77	20.53	20.99	18.84	19.60	19.32	20.07	20.54
8H	4H	18.65	19.49	19.11	19.93	20.40	18.27	19.12	18.73	19.56	20.03
	6H	19.36	20.06	19.85	20.55	21.03	18.98	19.68	19.47	20.17	20.64
	8H	19.62	20.25	20.13	20.76	21.24	19.23	19.86	19.74	20.36	20.85
	12H	19.82	20.38	20.33	20.87	21.43	19.41	19.96	19.91	20.45	21.01
12H	4H	18.67	19.43	19.15	19.91	20.38	18.31	19.07	18.79	19.54	20.01
	6H	19.40	20.04	19.91	20.54	21.03	19.04	19.67	19.55	20.17	20.66
	8H	19.72	20.28	20.23	20.77	21.33	19.34	19.90	19.85	20.39	20.95