

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: P931371

Luminaire Tested: DFN2DS-TR3F0-060DS830-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931371
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-TR3F0-060DS830-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

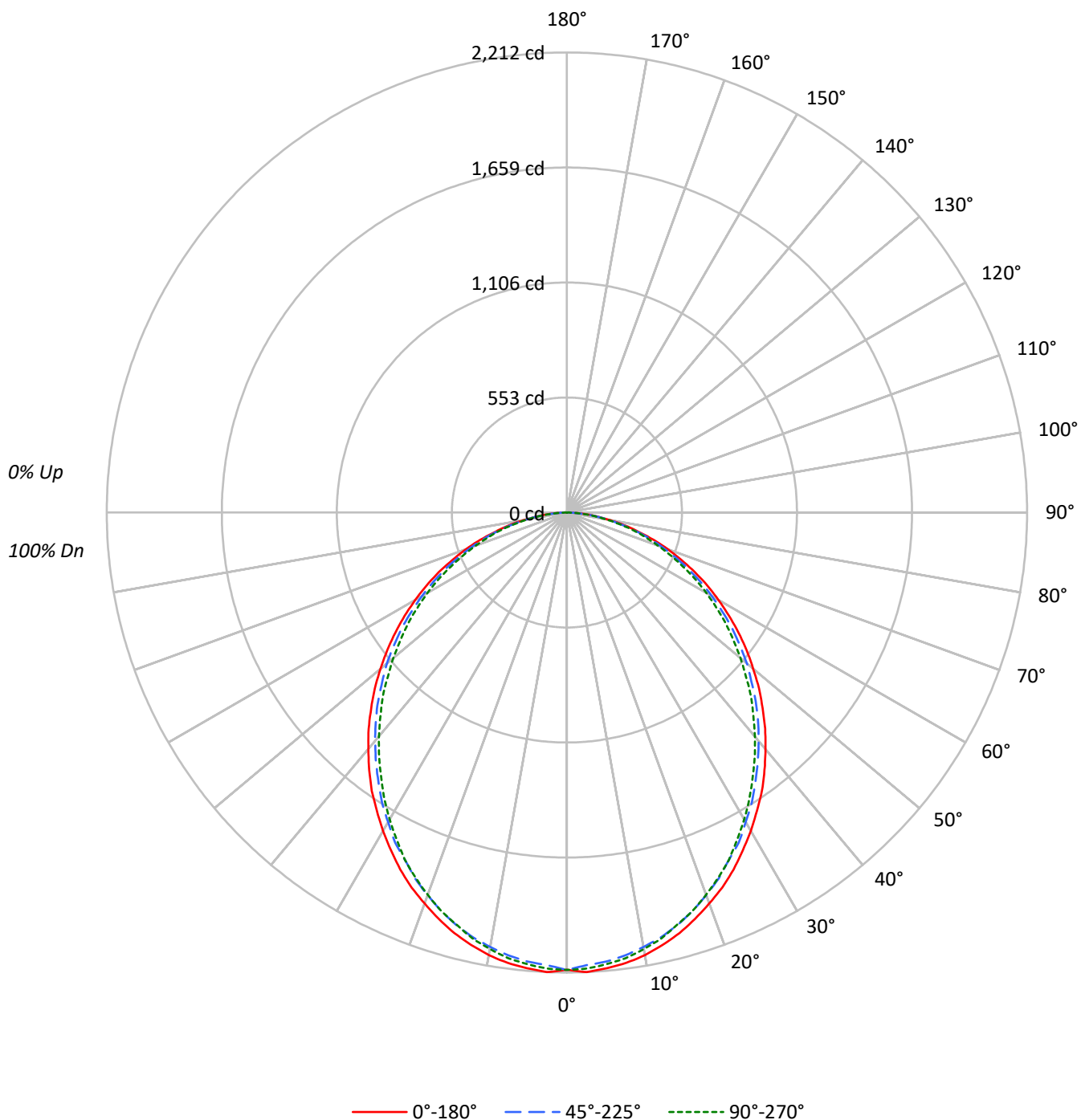
Lumens per Lamp: N/A
Luminaire Lumens: 5595.4 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 61.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9789
Total Harmonic Distortion (THDi): 0.074
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°	2740	2740	2740
5°	2751	2711	2727
10°	2735	2684	2697
15°	2701	2649	2646
20°	2653	2597	2594
25°	2605	2533	2533
30°	2544	2474	2453
35°	2487	2403	2368
40°	2415	2332	2288
45°	2344	2262	2206
50°	2267	2189	2111
55°	2187	2104	2026
60°	2097	2003	1929
65°	2002	1902	1815
70°	1880	1779	1695
75°	1710	1638	1599
80°	1518	1472	1396
85°	1238	1180	1058

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2344 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.0	3.7
10°-20°	582.4	10.4
20°-30°	855.9	15.3
30°-40°	994.1	17.8
40°-50°	992.8	17.7
50°-60°	865.7	15.5
60°-70°	639.9	11.4
70°-80°	362.1	6.5
80°-90°	95.6	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°	1645.3	29.4
0°-40°	2639.3	47.2
0°-60°	4497.9	80.4
0°-90°	5595.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5595.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2199	2199	2199	2199	2199	
5°	2199	2191	2168	2184	2180	209
15°	2094	2081	2053	2062	2051	590
25°	1895	1878	1842	1846	1842	872
35°	1635	1614	1580	1567	1556	1021
45°	1330	1315	1284	1260	1252	1027
55°	1007	994	969	943	933	900
65°	679	666	645	626	615	671
75°	355	351	340	328	332	379
85°	87	85	82	76	74	102
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2199.2	2199.2	2199.2	2199.2	2199.2
2.5°	2212.0	2201.5	2178.1	2199.2	2195.1
5°	2199.2	2190.9	2167.5	2184.4	2180.4
7.5°	2184.4	2171.9	2148.5	2165.6	2161.3
10°	2161.3	2146.5	2121.1	2138.0	2131.7
12.5°	2129.5	2116.9	2091.5	2102.1	2097.8
15°	2093.5	2081.0	2053.4	2061.9	2051.4
17.5°	2049.1	2036.6	2009.0	2019.5	2009.0
20°	2000.4	1987.9	1958.2	1964.5	1956.3
22.5°	1952.0	1932.9	1905.3	1905.3	1901.1
25°	1894.7	1878.0	1842.0	1846.0	1842.0
27.5°	1831.2	1816.5	1789.0	1782.8	1772.3
30°	1768.0	1750.9	1719.3	1713.0	1704.5
32.5°	1700.2	1687.7	1653.8	1641.0	1632.5
35°	1634.7	1613.6	1579.7	1566.9	1556.4
37.5°	1560.7	1541.6	1507.8	1492.9	1482.3
40°	1484.6	1467.5	1433.7	1414.9	1406.3
42.5°	1410.6	1393.5	1359.9	1338.6	1326.0
45°	1330.3	1315.4	1283.6	1260.5	1251.9
47.5°	1251.9	1237.1	1203.3	1179.9	1167.3
50°	1169.4	1158.8	1129.3	1099.6	1089.0
52.5°	1089.0	1074.3	1046.8	1023.6	1008.8
55°	1006.7	993.9	968.6	943.2	932.7
57.5°	924.2	913.6	886.0	860.7	852.1
60°	841.6	833.3	803.7	780.4	774.0
62.5°	761.2	746.4	725.3	704.2	695.8
65°	678.9	666.2	645.1	626.0	615.4
67.5°	594.3	583.6	564.7	549.9	541.4
70°	516.0	507.5	488.4	473.6	465.3
72.5°	435.7	427.2	416.6	401.9	395.5
75°	355.1	351.2	340.3	327.8	332.1
77.5°	283.4	274.9	270.5	264.3	258.0
80°	211.6	209.3	205.1	198.8	194.5
82.5°	143.8	143.8	141.8	133.3	133.3
85°	86.6	84.6	82.5	76.0	74.0
87.5°	38.2	33.9	29.6	23.4	21.1
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	14.79	16.40	15.15	16.71	17.02	14.34	15.95	14.71	16.27	16.58
	3H	16.54	17.99	16.91	18.32	18.68	16.04	17.50	16.42	17.83	18.19
	4H	17.18	18.55	17.58	18.90	19.27	16.69	18.06	17.09	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	17.72	18.89	19.29
	12H	17.88	19.04	18.31	19.43	19.85	17.37	18.53	17.80	18.91	19.34
4H	2H	15.35	16.71	15.74	17.06	17.44	14.99	16.36	15.39	16.71	17.09
	3H	17.32	18.47	17.73	18.86	19.26	16.91	18.06	17.32	18.46	18.86
	4H	18.10	19.13	18.53	19.55	19.98	17.67	18.71	18.10	19.12	19.56
	6H	18.69	19.60	19.15	20.04	20.50	18.26	19.17	18.72	19.61	20.06
	8H	18.88	19.73	19.34	20.17	20.64	18.45	19.29	18.91	19.73	20.20
	12H	19.02	19.78	19.50	20.25	20.72	18.56	19.32	19.04	19.80	20.27
8H	4H	18.37	19.22	18.83	19.66	20.12	18.00	18.84	18.46	19.29	19.75
	6H	19.08	19.79	19.58	20.28	20.75	18.70	19.41	19.20	19.89	20.37
	8H	19.34	19.97	19.85	20.48	20.97	18.95	19.58	19.46	20.09	20.58
	12H	19.54	20.10	20.05	20.59	21.15	19.13	19.69	19.64	20.18	20.74
12H	4H	18.40	19.16	18.88	19.63	20.10	18.03	18.79	18.51	19.27	19.74
	6H	19.13	19.76	19.64	20.27	20.75	18.76	19.39	19.27	19.90	20.39
	8H	19.44	20.00	19.95	20.49	21.05	19.07	19.62	19.57	20.11	20.68

END OF REPORT