

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: P931299

Luminaire Tested: DFN2DS-TR2F0-060DS830-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931299
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-TR2F0-060DS830-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

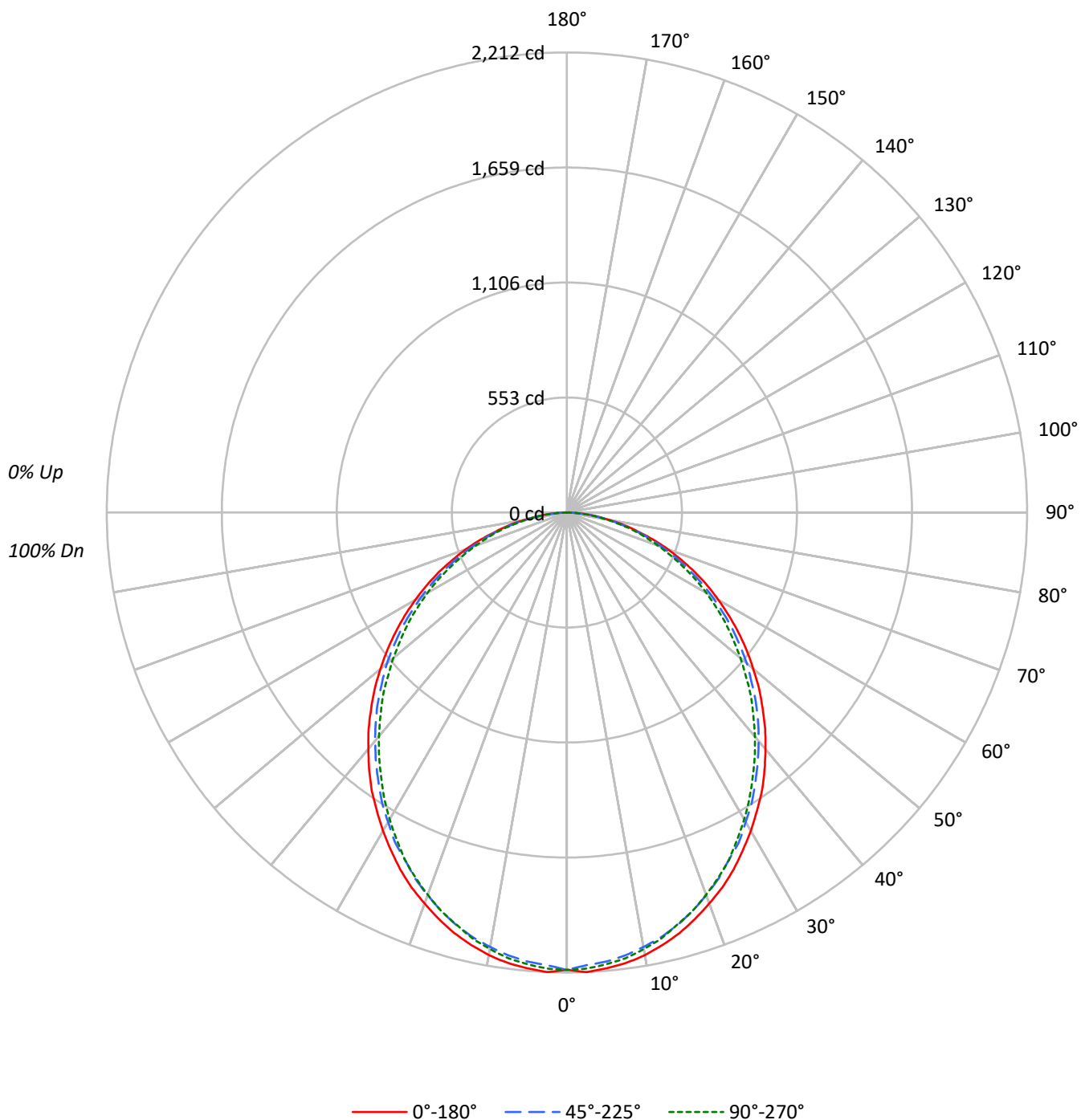
Lumens per Lamp: N/A
Luminaire Lumens: 5595.4 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 61.8
Input Voltage (V): 120
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			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°	4905	4905	4905
5°	4924	4853	4882
10°	4895	4804	4828
15°	4834	4742	4737
20°	4748	4648	4643
25°	4663	4533	4533
30°	4553	4428	4390
35°	4451	4301	4238
40°	4323	4174	4095
45°	4196	4049	3949
50°	4058	3919	3779
55°	3915	3767	3627
60°	3754	3585	3453
65°	3583	3405	3248
70°	3365	3185	3034
75°	3060	2933	2862
80°	2718	2634	2498
85°	2216	2111	1894

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4196 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	16.81	18.42	17.17	18.73	19.05	16.36	17.97	16.73	18.29	18.60
	3H	18.56	20.01	18.93	20.34	20.70	18.07	19.52	18.44	19.85	20.21
	4H	19.20	20.57	19.60	20.92	21.30	18.71	20.08	19.11	20.43	20.80
	6H	19.67	20.94	20.08	21.31	21.70	19.17	20.44	19.58	20.81	21.20
	8H	19.82	21.03	20.24	21.42	21.82	19.31	20.52	19.74	20.91	21.31
	12H	19.91	21.07	20.34	21.45	21.88	19.39	20.55	19.82	20.94	21.36
4H	2H	17.37	18.74	17.77	19.09	19.46	17.02	18.38	17.41	18.73	19.11
	3H	19.34	20.49	19.75	20.89	21.29	18.94	20.08	19.35	20.48	20.88
	4H	20.12	21.16	20.55	21.57	22.01	19.70	20.73	20.13	21.15	21.58
	6H	20.72	21.62	21.17	22.06	22.52	20.28	21.19	20.74	21.63	22.09
	8H	20.91	21.75	21.37	22.19	22.66	20.47	21.31	20.93	21.76	22.22
	12H	21.04	21.80	21.52	22.27	22.74	20.59	21.35	21.07	21.82	22.29
8H	4H	20.39	21.24	20.85	21.68	22.15	20.02	20.87	20.48	21.31	21.77
	6H	21.11	21.81	21.60	22.30	22.77	20.73	21.43	21.22	21.92	22.39
	8H	21.37	22.00	21.88	22.50	22.99	20.98	21.61	21.48	22.11	22.60
	12H	21.57	22.12	22.07	22.61	23.18	21.15	21.71	21.66	22.20	22.76
12H	4H	20.42	21.18	20.90	21.65	22.12	20.05	20.81	20.53	21.29	21.76
	6H	21.15	21.78	21.66	22.29	22.78	20.78	21.42	21.29	21.92	22.41
	8H	21.47	22.02	21.97	22.52	23.08	21.09	21.65	21.60	22.14	22.70