

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: P930498

Luminaire Tested: DFN2DS-PN2F0-060DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930498
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN2F0-060DS927-RLL
Description: 2 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

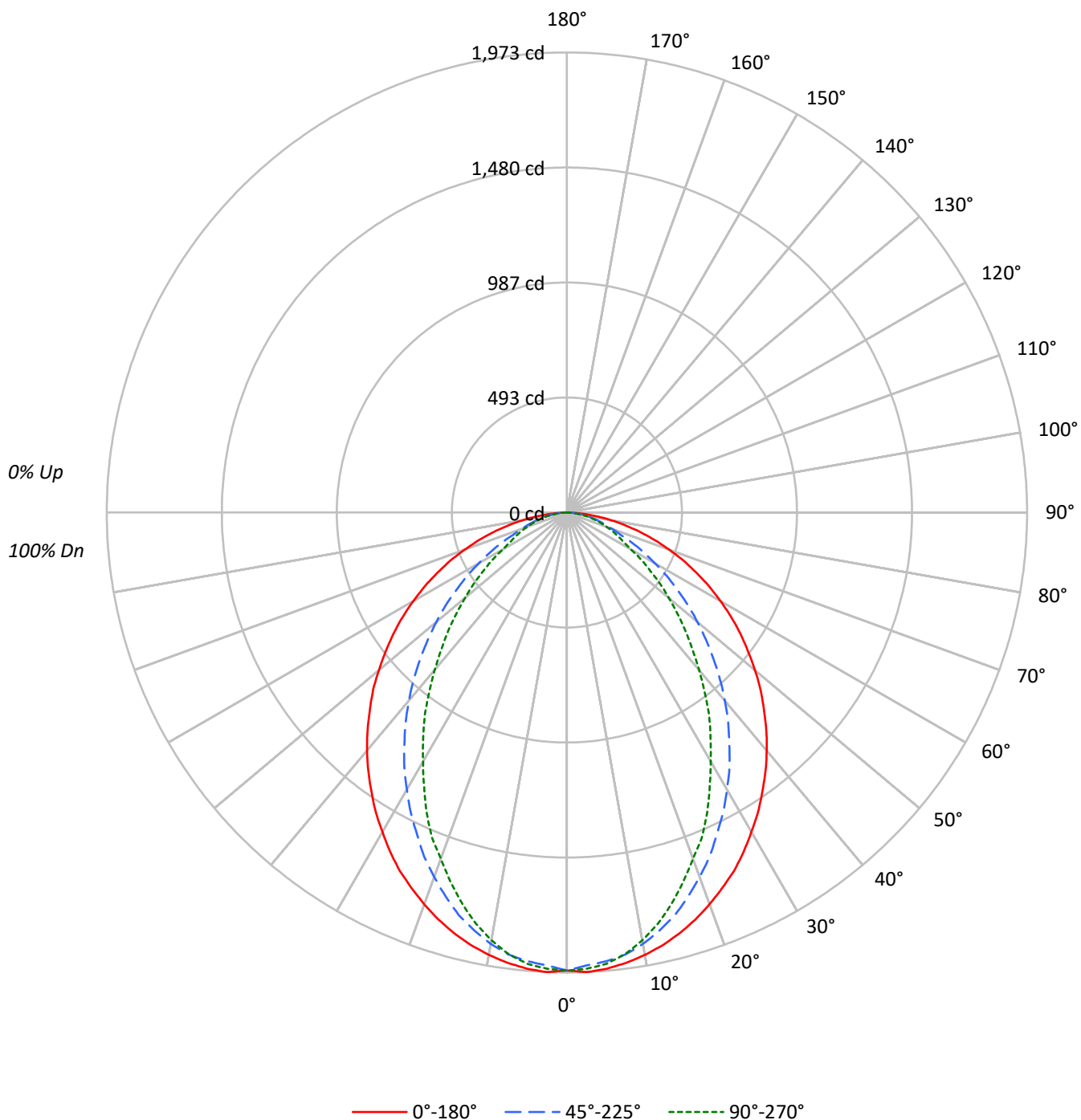
Lumens per Lamp: N/A
Luminaire Lumens: 4039.2 lumens
Efficiency: N/A
Efficacy: 59.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 67.6
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

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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	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4254	4254	4254
5°	4270	4200	4224
10°	4237	4132	4097
15°	4189	4009	3894
20°	4121	3834	3642
25°	4052	3636	3398
30°	3956	3432	3085
35°	3863	3210	2810
40°	3769	2980	2493
45°	3658	2722	2205
50°	3546	2461	1923
55°	3429	2181	1651
60°	3295	1886	1371
65°	3143	1585	1248
70°	2960	1305	1147
75°	2736	1190	1072
80°	2415	1063	975
85°	1896	837	837

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3658 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.1	4.6
10°-20°	505.3	12.5
20°-30°	709.4	17.6
30°-40°	773.3	19.1
40°-50°	710.8	17.6
50°-60°	558.2	13.8
60°-70°	363.3	9.0
70°-80°	187.0	4.6
80°-90°	47.7	1.2
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°	1398.8	34.6
0°-40°	2172.1	53.8
0°-60°	3441.1	85.2
0°-90°	4039.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4039.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1964	1964	1964	1964	1964	
5°	1964	1955	1932	1948	1943	186
15°	1868	1848	1788	1754	1736	526
25°	1696	1639	1521	1449	1422	780
35°	1461	1370	1214	1102	1063	914
45°	1194	1075	889	762	720	922
55°	908	770	578	471	437	812
65°	613	469	309	249	244	608
75°	327	202	142	130	128	346
85°	76	39	34	34	34	92
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1964.0	1964.0	1964.0	1964.0	1964.0
2.5°	1972.9	1964.0	1944.4	1962.3	1958.7
5°	1964.0	1955.1	1931.9	1948.0	1942.7
7.5°	1948.0	1937.4	1912.5	1919.5	1910.6
10°	1926.6	1914.2	1878.8	1873.3	1862.7
12.5°	1900.1	1884.0	1835.9	1825.4	1805.8
15°	1868.0	1848.4	1788.0	1754.3	1736.5
17.5°	1830.7	1802.2	1727.5	1688.5	1660.0
20°	1788.0	1752.4	1663.6	1619.2	1580.0
22.5°	1741.8	1700.9	1597.8	1537.4	1510.8
25°	1695.7	1638.7	1521.4	1448.6	1421.9
27.5°	1640.6	1580.0	1450.3	1366.8	1325.9
30°	1581.9	1514.2	1372.1	1281.5	1233.5
32.5°	1525.0	1443.2	1297.6	1190.9	1146.3
35°	1461.1	1370.4	1214.1	1102.0	1062.8
37.5°	1398.8	1300.9	1135.8	1013.0	968.7
40°	1333.0	1226.5	1053.9	927.7	881.6
42.5°	1265.5	1151.8	972.3	840.6	796.4
45°	1194.4	1075.2	888.8	762.4	719.8
47.5°	1126.9	1000.8	808.8	682.5	643.4
50°	1052.3	926.1	730.5	607.8	570.6
52.5°	979.2	845.9	655.9	538.6	504.8
55°	908.2	769.6	577.6	471.1	437.3
57.5°	835.4	693.2	508.4	408.8	380.3
60°	760.7	618.6	435.4	344.9	316.4
62.5°	687.9	545.8	373.2	288.0	273.8
65°	613.2	469.2	309.3	248.9	243.5
67.5°	542.1	398.1	248.9	218.6	213.3
70°	467.4	328.8	206.1	188.4	181.2
72.5°	396.4	264.8	172.3	158.2	154.6
75°	327.0	202.5	142.2	129.7	128.1
77.5°	257.8	143.9	112.0	104.9	101.3
80°	193.6	103.1	85.2	78.2	78.2
82.5°	135.0	69.4	58.6	55.0	55.0
85°	76.3	39.0	33.7	33.7	33.7
87.5°	28.5	14.2	14.2	12.4	12.4
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	16.26	17.79	16.63	18.10	18.41	12.22	13.75	12.59	14.06	14.37
	3H	18.03	19.40	18.41	19.72	20.08	13.49	14.86	13.87	15.18	15.55
	4H	18.70	19.98	19.10	20.33	20.70	13.99	15.27	14.39	15.62	16.00
	6H	19.19	20.37	19.60	20.73	21.13	14.37	15.56	14.79	15.92	16.31
	8H	19.35	20.48	19.78	20.87	21.27	14.50	15.62	14.92	16.01	16.41
	12H	19.45	20.53	19.88	20.91	21.34	14.58	15.66	15.01	16.04	16.47
4H	2H	16.37	17.65	16.77	18.00	18.38	12.92	14.20	13.32	14.55	14.93
	3H	18.30	19.36	18.71	19.76	20.17	14.36	15.43	14.77	15.83	16.23
	4H	19.05	20.01	19.48	20.42	20.86	14.96	15.92	15.40	16.34	16.77
	6H	19.64	20.48	20.10	20.92	21.38	15.45	16.28	15.91	16.73	17.19
	8H	19.86	20.63	20.32	21.08	21.55	15.61	16.39	16.08	16.83	17.30
	12H	20.01	20.71	20.49	21.18	21.65	15.73	16.42	16.21	16.90	17.37
8H	4H	19.08	19.85	19.54	20.30	20.76	15.32	16.09	15.78	16.54	17.01
	6H	19.71	20.36	20.21	20.85	21.32	15.90	16.55	16.40	17.04	17.51
	8H	19.96	20.54	20.48	21.05	21.54	16.12	16.70	16.64	17.21	17.70
	12H	20.17	20.68	20.68	21.17	21.73	16.30	16.81	16.81	17.30	17.87
12H	4H	19.06	19.75	19.54	20.23	20.70	15.36	16.06	15.84	16.53	17.00
	6H	19.69	20.27	20.21	20.78	21.27	15.97	16.54	16.48	17.05	17.54
	8H	19.98	20.49	20.49	20.98	21.54	16.24	16.75	16.75	17.24	17.81

END OF REPORT

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE

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