

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: P930122

Luminaire Tested: DFN2DS-HX2F0-060DS930-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930122
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-HX2F0-060DS930-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

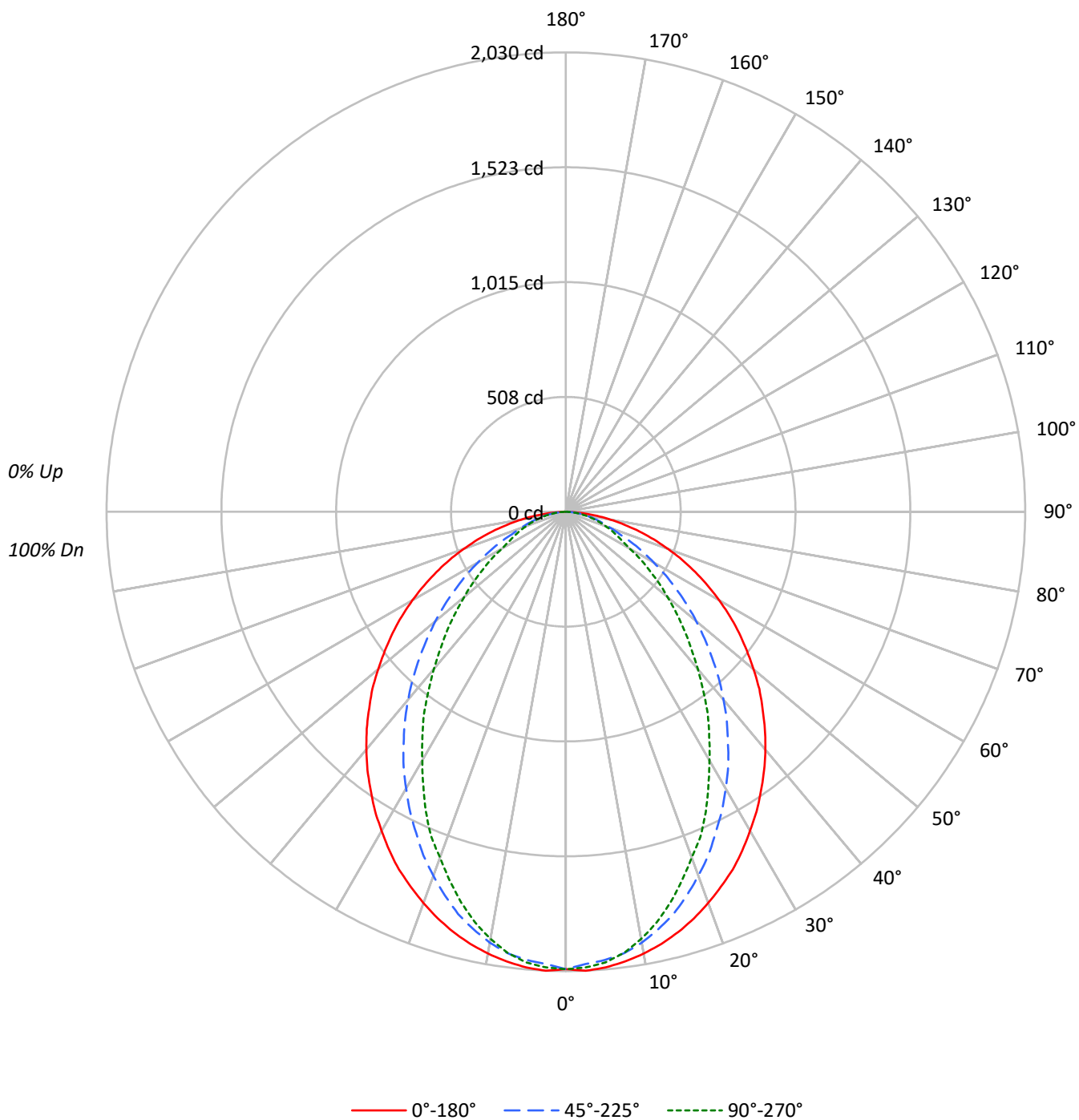
Lumens per Lamp: N/A
Luminaire Lumens: 4156.5 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 61.8
Input Voltage (V):
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
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°	4762	4762	4762
5°	4780	4702	4728
10°	4743	4625	4586
15°	4689	4488	4359
20°	4613	4292	4077
25°	4536	4070	3804
30°	4429	3841	3453
35°	4325	3593	3146
40°	4219	3336	2790
45°	4095	3048	2468
50°	3969	2756	2152
55°	3839	2442	1849
60°	3689	2112	1534
65°	3518	1775	1397
70°	3314	1461	1285
75°	3063	1332	1200
80°	2704	1190	1092
85°	2125	938	938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4095 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.4	4.6
10°-20°	520.0	12.5
20°-30°	730.0	17.6
30°-40°	795.8	19.1
40°-50°	731.4	17.6
50°-60°	574.4	13.8
60°-70°	373.9	9.0
70°-80°	192.5	4.6
80°-90°	49.1	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°	1439.4	34.6
0°-40°	2235.2	53.8
0°-60°	3541.0	85.2
0°-90°	4156.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4156.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2021	2021	2021	2021	2021	
5°	2021	2012	1988	2005	1999	192
15°	1922	1902	1840	1805	1787	542
25°	1745	1686	1566	1491	1463	802
35°	1504	1410	1249	1134	1094	941
45°	1229	1106	915	784	741	949
55°	935	792	594	485	450	835
65°	631	483	318	256	250	626
75°	336	208	146	134	132	356
85°	79	40	35	35	35	94
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2021.0	2021.0	2021.0	2021.0	2021.0
2.5°	2030.2	2021.0	2000.8	2019.2	2015.6
5°	2021.0	2011.9	1988.0	2004.6	1999.1
7.5°	2004.6	1993.7	1968.1	1975.2	1966.1
10°	1982.6	1969.8	1933.3	1927.7	1916.8
12.5°	1955.3	1938.7	1889.3	1878.4	1858.2
15°	1922.3	1902.0	1839.9	1805.2	1787.0
17.5°	1883.9	1854.5	1777.7	1737.5	1708.2
20°	1839.9	1803.3	1711.9	1666.3	1625.9
22.5°	1792.4	1750.3	1644.2	1582.1	1554.7
25°	1744.9	1686.3	1565.6	1490.7	1463.2
27.5°	1688.3	1625.9	1492.4	1406.4	1364.4
30°	1627.9	1558.2	1411.9	1318.8	1269.3
32.5°	1569.3	1485.1	1335.3	1225.4	1179.6
35°	1503.5	1410.2	1249.3	1134.0	1093.6
37.5°	1439.5	1338.7	1168.8	1042.5	996.8
40°	1371.7	1262.1	1084.5	954.7	907.2
42.5°	1302.3	1185.3	1000.5	865.0	819.5
45°	1229.1	1106.4	914.6	784.5	740.7
47.5°	1159.7	1029.8	832.3	702.3	662.1
50°	1082.8	953.0	751.8	625.4	587.2
52.5°	1007.7	870.5	674.9	554.2	519.5
55°	934.6	791.9	594.4	484.8	450.0
57.5°	859.7	713.3	523.1	420.7	391.4
60°	782.8	636.5	448.1	354.9	325.6
62.5°	707.9	561.6	384.0	296.3	281.7
65°	631.1	482.8	318.3	256.2	250.5
67.5°	557.9	409.6	256.2	224.9	219.5
70°	481.0	338.4	212.1	193.9	186.5
72.5°	407.9	272.5	177.3	162.8	159.1
75°	336.5	208.4	146.3	133.5	131.8
77.5°	265.3	148.1	115.2	107.9	104.2
80°	199.3	106.1	87.7	80.5	80.5
82.5°	139.0	71.4	60.3	56.6	56.6
85°	78.6	40.2	34.7	34.7	34.7
87.5°	29.3	14.6	14.6	12.8	12.8
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	16.66	18.18	17.02	18.49	18.81	12.62	14.14	12.98	14.45	14.77
	3H	18.42	19.79	18.80	20.11	20.48	13.88	15.25	14.26	15.58	15.94
	4H	19.09	20.37	19.49	20.72	21.10	14.38	15.67	14.78	16.01	16.39
	6H	19.58	20.76	19.99	21.13	21.52	14.77	15.95	15.18	16.31	16.71
	8H	19.74	20.87	20.17	21.26	21.66	14.89	16.02	15.32	16.41	16.81
	12H	19.85	20.92	20.28	21.31	21.74	14.97	16.05	15.40	16.43	16.86
4H	2H	16.76	18.04	17.16	18.39	18.77	13.31	14.59	13.71	14.94	15.32
	3H	18.69	19.76	19.10	20.16	20.56	14.76	15.82	15.17	16.22	16.62
	4H	19.44	20.40	19.88	20.82	21.25	15.36	16.31	15.79	16.73	17.17
	6H	20.04	20.87	20.49	21.31	21.77	15.84	16.68	16.30	17.12	17.58
	8H	20.25	21.03	20.71	21.47	21.94	16.01	16.78	16.47	17.23	17.69
	12H	20.40	21.10	20.89	21.58	22.05	16.12	16.82	16.60	17.30	17.77
8H	4H	19.47	20.25	19.93	20.69	21.16	15.71	16.49	16.17	16.93	17.40
	6H	20.11	20.75	20.60	21.24	21.72	16.30	16.94	16.79	17.43	17.91
	8H	20.36	20.93	20.87	21.44	21.93	16.52	17.09	17.03	17.60	18.09
	12H	20.56	21.07	21.07	21.56	22.13	16.70	17.21	17.20	17.70	18.26
12H	4H	19.45	20.15	19.93	20.62	21.10	15.75	16.45	16.23	16.93	17.40
	6H	20.09	20.66	20.60	21.17	21.66	16.36	16.94	16.87	17.45	17.93
	8H	20.37	20.88	20.88	21.37	21.94	16.63	17.14	17.14	17.63	18.20