

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: P930114

Luminaire Tested: DFN2DS-HX2F0-060DS835-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930114
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-HX2F0-060DS835-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

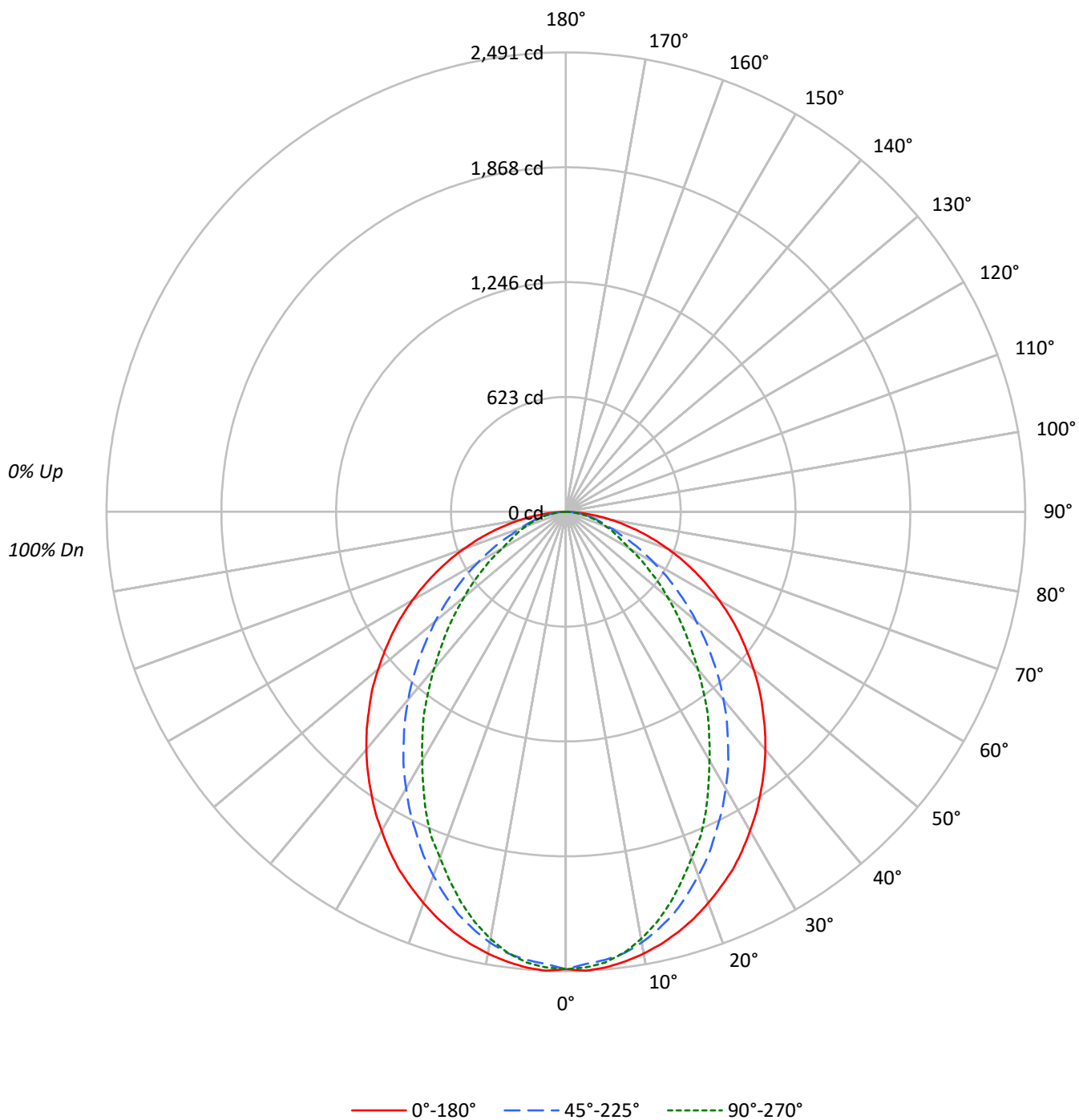
Lumens per Lamp: N/A
Luminaire Lumens: 5100.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P930114

CATALOG NUMBER: DFN2DS-HX2F0-060DS835-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930114

CATALOG NUMBER: DFN2DS-HX2F0-060DS835-RLL

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°	5843	5843	5843
5°	5865	5769	5801
10°	5820	5675	5627
15°	5753	5507	5348
20°	5661	5267	5002
25°	5566	4994	4667
30°	5434	4713	4237
35°	5306	4409	3860
40°	5177	4093	3424
45°	5025	3739	3028
50°	4870	3381	2641
55°	4710	2996	2268
60°	4526	2591	1883
65°	4317	2177	1714
70°	4066	1792	1576
75°	3759	1634	1472
80°	3317	1460	1341
85°	2606	1152	1152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5025 cd/sqm

TEST NUMBER: P930114

CATALOG NUMBER: DFN2DS-HX2F0-060DS835-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.4	4.6
10°-20°	638.0	12.5
20°-30°	895.7	17.6
30°-40°	976.4	19.1
40°-50°	897.4	17.6
50°-60°	704.8	13.8
60°-70°	458.8	9.0
70°-80°	236.1	4.6
80°-90°	60.3	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°	1766.2	34.6
0°-40°	2742.6	53.8
0°-60°	4344.8	85.2
0°-90°	5100.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5100.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2480	2480	2480	2480	2480	
5°	2480	2469	2439	2460	2453	235
15°	2359	2334	2258	2215	2193	665
25°	2141	2069	1921	1829	1795	985
35°	1845	1730	1533	1391	1342	1155
45°	1508	1358	1122	963	909	1165
55°	1147	972	729	595	552	1025
65°	774	592	390	314	307	768
75°	413	256	180	164	162	437
85°	96	49	43	43	43	116
90°	0	0	0	0	0	

TEST NUMBER: P930114

CATALOG NUMBER: DFN2DS-HX2F0-060DS835-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2479.8	2479.8	2479.8	2479.8	2479.8
2.5°	2491.0	2479.8	2455.0	2477.6	2473.1
5°	2479.8	2468.6	2439.3	2459.6	2452.9
7.5°	2459.6	2446.2	2414.8	2423.6	2412.4
10°	2432.6	2416.9	2372.2	2365.3	2351.9
12.5°	2399.1	2378.8	2318.1	2304.8	2280.0
15°	2358.6	2333.8	2257.6	2215.0	2192.6
17.5°	2311.5	2275.5	2181.2	2131.9	2096.0
20°	2257.6	2212.6	2100.5	2044.5	1995.0
22.5°	2199.3	2147.6	2017.4	1941.2	1907.6
25°	2141.0	2069.1	1921.0	1829.1	1795.3
27.5°	2071.5	1995.0	1831.2	1725.7	1674.1
30°	1997.4	1911.9	1732.4	1618.1	1557.4
32.5°	1925.5	1822.2	1638.4	1503.6	1447.4
35°	1844.8	1730.3	1532.9	1391.4	1341.9
37.5°	1766.2	1642.6	1434.1	1279.1	1223.1
40°	1683.1	1548.6	1330.7	1171.4	1113.1
42.5°	1597.9	1454.3	1227.6	1061.4	1005.5
45°	1508.1	1357.6	1122.2	962.6	908.8
47.5°	1422.9	1263.6	1021.2	861.7	812.4
50°	1328.6	1169.3	922.4	767.4	720.5
52.5°	1236.4	1068.1	828.1	680.0	637.4
55°	1146.7	971.7	729.3	594.8	552.1
57.5°	1054.8	875.2	641.9	516.2	480.2
60°	960.5	781.0	549.8	435.5	399.5
62.5°	868.6	689.1	471.2	363.6	345.7
65°	774.3	592.4	390.5	314.3	307.4
67.5°	684.5	502.6	314.3	276.0	269.3
70°	590.2	415.2	260.2	237.9	228.8
72.5°	500.5	334.3	217.6	199.8	195.2
75°	412.9	255.7	179.5	163.8	161.7
77.5°	325.5	181.7	141.4	132.4	127.9
80°	244.5	130.2	107.6	98.8	98.8
82.5°	170.5	87.6	74.0	69.5	69.5
85°	96.4	49.3	42.6	42.6	42.6
87.5°	36.0	17.9	17.9	15.7	15.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930114

CATALOG NUMBER: DFN2DS-HX2F0-060DS835-RLL

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	17.37	18.89	17.73	19.20	19.52	13.33	14.85	13.69	15.16	15.48
	3H	19.13	20.50	19.51	20.83	21.19	14.59	15.96	14.97	16.29	16.65
	4H	19.80	21.08	20.20	21.43	21.81	15.10	16.38	15.49	16.72	17.10
	6H	20.29	21.47	20.70	21.84	22.23	15.48	16.66	15.89	17.03	17.42
	8H	20.45	21.58	20.88	21.97	22.37	15.60	16.73	16.03	17.12	17.52
	12H	20.56	21.63	20.99	22.02	22.45	15.68	16.76	16.11	17.14	17.57
4H	2H	17.47	18.75	17.87	19.10	19.48	14.02	15.30	14.42	15.65	16.03
	3H	19.40	20.47	19.82	20.87	21.27	15.47	16.53	15.88	16.93	17.33
	4H	20.15	21.11	20.59	21.53	21.96	16.07	17.02	16.50	17.44	17.88
	6H	20.75	21.58	21.20	22.02	22.48	16.55	17.39	17.01	17.83	18.29
	8H	20.96	21.74	21.42	22.18	22.65	16.72	17.49	17.18	17.94	18.41
	12H	21.11	21.81	21.60	22.29	22.76	16.83	17.53	17.32	18.01	18.48
8H	4H	20.18	20.96	20.64	21.40	21.87	16.42	17.20	16.88	17.64	18.11
	6H	20.82	21.46	21.31	21.95	22.43	17.01	17.65	17.50	18.14	18.62
	8H	21.07	21.64	21.58	22.15	22.64	17.23	17.80	17.74	18.31	18.80
	12H	21.27	21.78	21.78	22.27	22.84	17.41	17.92	17.92	18.41	18.97
12H	4H	20.16	20.86	20.64	21.34	21.81	16.46	17.16	16.95	17.64	18.11
	6H	20.80	21.37	21.31	21.88	22.37	17.07	17.65	17.58	18.16	18.65
	8H	21.08	21.59	21.59	22.08	22.65	17.34	17.85	17.85	18.35	18.91