

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: P930335

Luminaire Tested: DFN2DS-HX4F0-080DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930335
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-HX4F0-080DS927-FLL
Description: 4 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

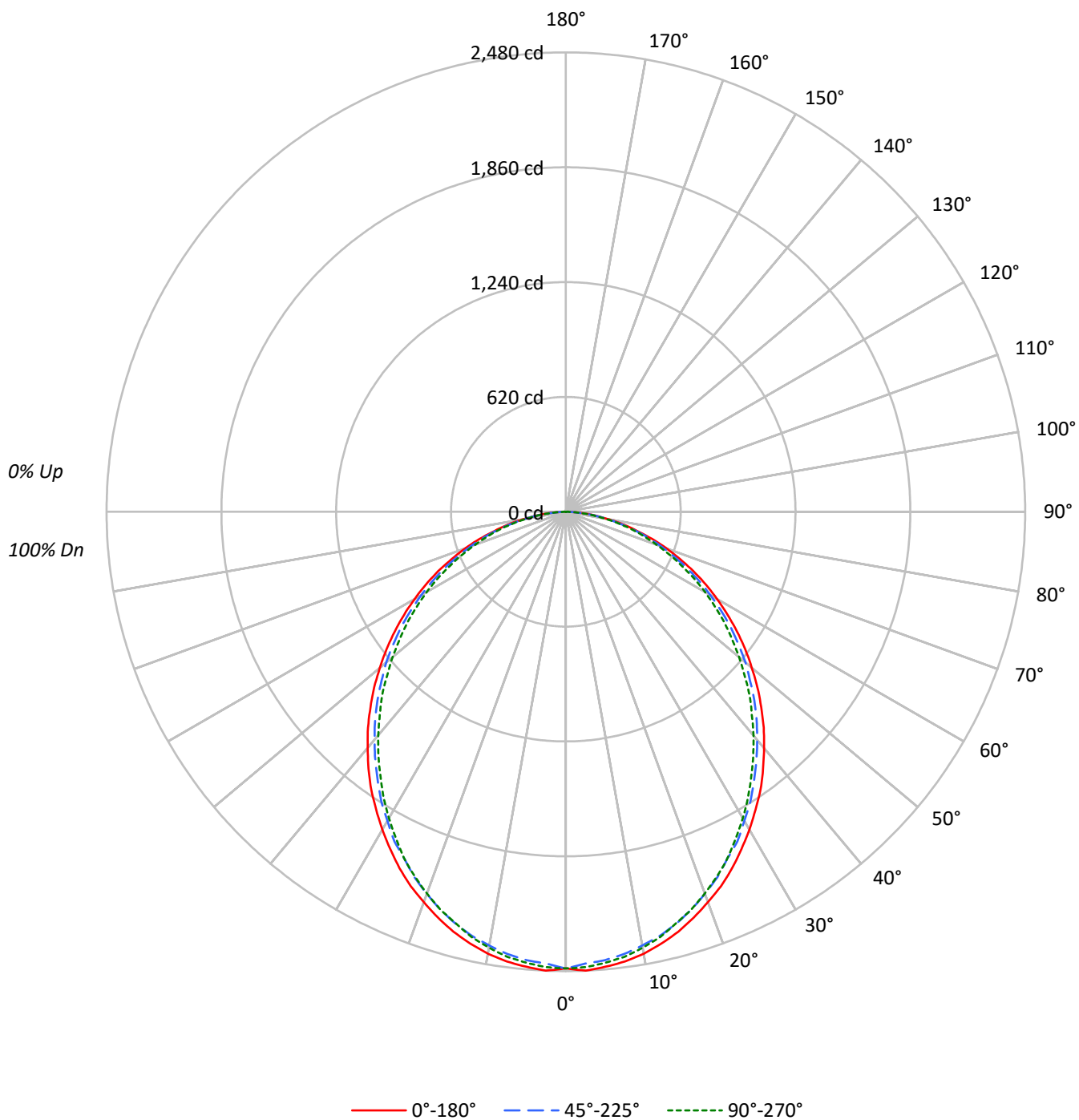
Lumens per Lamp: N/A
Luminaire Lumens: 6272.6 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 4.09' x L: 3.54' x H: 0')
CIE Type: Direct

Input Watts (W): 81.5
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9613
Total Harmonic Distortion (THDi): 0.083
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930335

CATALOG NUMBER: DFN2DS-HX4F0-080DS927-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930335

CATALOG NUMBER: DFN2DS-HX4F0-080DS927-FLL

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°	1833	1833	1833
5°	1840	1814	1824
10°	1829	1795	1804
15°	1807	1772	1770
20°	1774	1737	1735
25°	1743	1694	1694
30°	1702	1655	1641
35°	1663	1607	1584
40°	1615	1560	1530
45°	1568	1513	1476
50°	1516	1464	1412
55°	1463	1408	1355
60°	1403	1340	1290
65°	1339	1272	1214
70°	1258	1191	1134
75°	1144	1096	1069
80°	1016	984	933
85°	828	790	708

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1568 cd/sqm

TEST NUMBER: P930335

CATALOG NUMBER: DFN2DS-HX4F0-080DS927-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.0	3.7
10°-20°	652.9	10.4
20°-30°	959.5	15.3
30°-40°	1114.4	17.8
40°-50°	1113.0	17.7
50°-60°	970.5	15.5
60°-70°	717.4	11.4
70°-80°	405.9	6.5
80°-90°	107.1	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°	1844.4	29.4
0°-40°	2958.8	47.2
0°-60°	5042.2	80.4
0°-90°	6272.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6272.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2465	2465	2465	2465	2465	
5°	2465	2456	2430	2449	2444	234
15°	2347	2333	2302	2312	2300	661
25°	2124	2105	2065	2070	2065	977
35°	1832	1809	1771	1757	1745	1144
45°	1491	1475	1439	1413	1404	1151
55°	1128	1114	1086	1057	1046	1009
65°	761	747	723	702	690	752
75°	398	394	382	368	372	425
85°	97	95	93	85	83	114
90°	0	0	0	0	0	

TEST NUMBER: P930335

CATALOG NUMBER: DFN2DS-HX4F0-080DS927-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2465.3	2465.3	2465.3	2465.3	2465.3
2.5°	2479.7	2467.9	2441.7	2465.3	2460.8
5°	2465.3	2456.1	2429.9	2448.8	2444.3
7.5°	2448.8	2434.7	2408.6	2427.6	2422.9
10°	2422.9	2406.3	2377.8	2396.7	2389.7
12.5°	2387.2	2373.1	2344.6	2356.4	2351.7
15°	2346.9	2332.8	2301.9	2311.5	2299.7
17.5°	2297.1	2283.0	2252.1	2263.9	2252.1
20°	2242.5	2228.5	2195.3	2202.3	2193.0
22.5°	2188.2	2166.8	2135.9	2135.9	2131.1
25°	2124.1	2105.2	2065.0	2069.5	2065.0
27.5°	2052.9	2036.3	2005.6	1998.5	1986.7
30°	1982.0	1962.8	1927.4	1920.4	1910.8
32.5°	1906.0	1891.9	1853.9	1839.6	1830.1
35°	1832.5	1808.9	1770.9	1756.6	1744.8
37.5°	1749.5	1728.1	1690.2	1673.6	1661.8
40°	1664.3	1645.1	1607.2	1586.1	1576.5
42.5°	1581.3	1562.1	1524.4	1500.5	1486.5
45°	1491.3	1474.6	1438.9	1413.0	1403.5
47.5°	1403.5	1386.9	1348.9	1322.7	1308.6
50°	1310.9	1299.1	1265.9	1232.7	1220.9
52.5°	1220.9	1204.2	1173.6	1147.4	1130.8
55°	1128.5	1114.2	1085.8	1057.4	1045.5
57.5°	1036.0	1024.2	993.2	964.8	955.2
60°	943.4	934.2	900.9	874.8	867.7
62.5°	853.4	836.8	813.1	789.5	780.0
65°	761.1	746.8	723.1	701.7	689.9
67.5°	666.2	654.2	633.0	616.5	606.9
70°	578.5	568.9	547.6	531.0	521.6
72.5°	488.4	478.9	467.0	450.5	443.4
75°	398.1	393.6	381.6	367.5	372.2
77.5°	317.7	308.1	303.3	296.3	289.2
80°	237.2	234.7	229.9	222.9	218.0
82.5°	161.3	161.3	159.0	149.4	149.4
85°	97.1	94.8	92.6	85.3	83.0
87.5°	42.8	38.0	33.2	26.1	23.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930335

CATALOG NUMBER: DFN2DS-HX4F0-080DS927-FLL

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	13.39	15.00	13.75	15.31	15.63	12.94	14.55	13.31	14.87	15.18
	3H	15.14	16.59	15.52	16.92	17.28	14.65	16.10	15.02	16.43	16.79
	4H	15.78	17.15	16.18	17.50	17.88	15.29	16.66	15.69	17.01	17.38
	6H	16.25	17.52	16.66	17.89	18.28	15.75	17.02	16.16	17.39	17.78
	8H	16.40	17.61	16.82	18.00	18.40	15.89	17.10	16.32	17.49	17.89
	12H	16.49	17.65	16.92	18.03	18.46	15.97	17.13	16.40	17.52	17.95
4H	2H	13.95	15.32	14.35	15.67	16.04	13.60	14.96	13.99	15.31	15.69
	3H	15.92	17.07	16.33	17.47	17.87	15.52	16.66	15.93	17.06	17.46
	4H	16.70	17.74	17.13	18.15	18.59	16.28	17.31	16.71	17.73	18.16
	6H	17.30	18.20	17.75	18.64	19.10	16.86	17.77	17.32	18.21	18.67
	8H	17.49	18.33	17.95	18.78	19.24	17.05	17.89	17.51	18.34	18.80
	12H	17.62	18.38	18.10	18.85	19.32	17.17	17.93	17.65	18.40	18.87
8H	4H	16.97	17.82	17.43	18.26	18.73	16.60	17.45	17.06	17.89	18.35
	6H	17.69	18.39	18.18	18.88	19.35	17.31	18.01	17.80	18.50	18.97
	8H	17.95	18.58	18.46	19.08	19.57	17.56	18.19	18.07	18.69	19.18
	12H	18.15	18.71	18.65	19.20	19.76	17.73	18.29	18.24	18.78	19.34
12H	4H	17.00	17.76	17.48	18.24	18.70	16.63	17.39	17.12	17.87	18.34
	6H	17.73	18.37	18.24	18.87	19.36	17.36	18.00	17.87	18.50	18.99
	8H	18.05	18.61	18.55	19.10	19.66	17.67	18.23	18.18	18.72	19.28