

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: P930123

Luminaire Tested: DFN2DS-HX2F0-060DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930123
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-HX2F0-060DS935-FLL
Description: 2 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

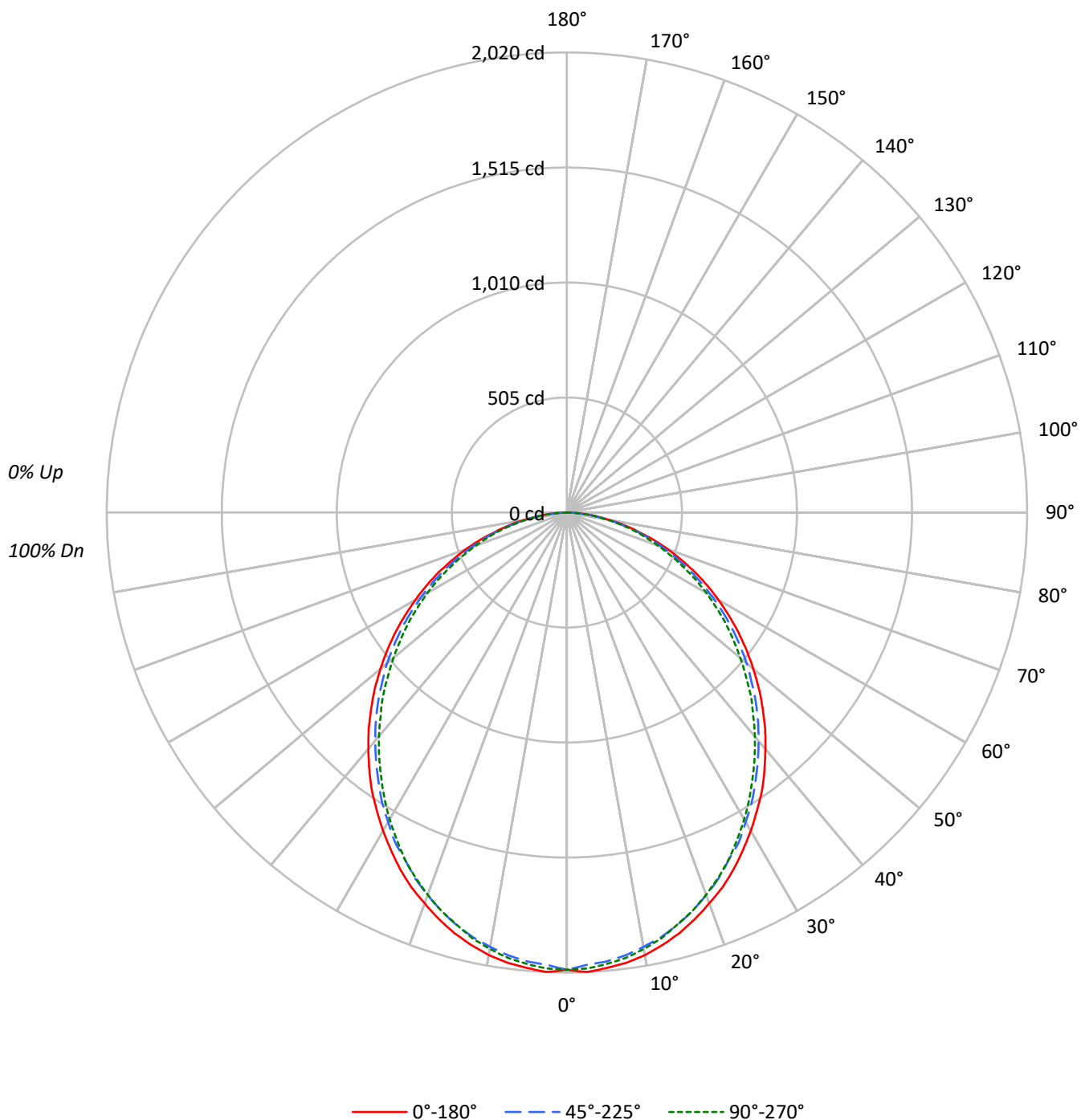
Lumens per Lamp: N/A
Luminaire Lumens: 5108.4 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

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
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°	4731	4731	4731
5°	4749	4680	4708
10°	4721	4633	4656
15°	4662	4573	4568
20°	4579	4483	4478
25°	4497	4372	4372
30°	4391	4271	4234
35°	4293	4148	4087
40°	4169	4026	3949
45°	4047	3905	3808
50°	3913	3779	3644
55°	3775	3633	3498
60°	3620	3458	3330
65°	3455	3283	3132
70°	3245	3072	2926
75°	2951	2828	2760
80°	2621	2540	2410
85°	2136	2036	1827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4047 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.0	3.7
10°-20°	531.7	10.4
20°-30°	781.4	15.3
30°-40°	907.5	17.8
40°-50°	906.4	17.7
50°-60°	790.4	15.5
60°-70°	584.3	11.4
70°-80°	330.6	6.5
80°-90°	87.2	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°	1502.1	29.4
0°-40°	2409.6	47.2
0°-60°	4106.3	80.4
0°-90°	5108.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5108.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2008	2008	2008	2008	2008	
5°	2008	2000	1979	1994	1991	191
15°	1911	1900	1875	1882	1873	538
25°	1730	1714	1682	1685	1682	796
35°	1492	1473	1442	1430	1421	932
45°	1214	1201	1172	1151	1143	937
55°	919	907	884	861	852	822
65°	620	608	589	572	562	613
75°	324	321	311	299	303	346
85°	79	77	75	69	68	93
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2007.8	2007.8	2007.8	2007.8	2007.8
2.5°	2019.5	2009.8	1988.5	2007.8	2004.1
5°	2007.8	2000.2	1978.9	1994.3	1990.6
7.5°	1994.3	1982.8	1961.5	1977.1	1973.2
10°	1973.2	1959.7	1936.5	1951.9	1946.1
12.5°	1944.1	1932.6	1909.5	1919.1	1915.2
15°	1911.3	1899.8	1874.6	1882.5	1872.8
17.5°	1870.8	1859.3	1834.1	1843.7	1834.1
20°	1826.3	1814.9	1787.8	1793.5	1786.0
22.5°	1782.1	1764.6	1739.4	1739.4	1735.6
25°	1729.8	1714.5	1681.6	1685.3	1681.6
27.5°	1671.8	1658.3	1633.3	1627.6	1618.0
30°	1614.1	1598.5	1569.7	1563.9	1556.1
32.5°	1552.2	1540.8	1509.8	1498.1	1490.4
35°	1492.4	1473.2	1442.2	1430.5	1420.9
37.5°	1424.8	1407.4	1376.5	1362.9	1353.3
40°	1355.4	1339.8	1308.9	1291.7	1283.9
42.5°	1287.8	1272.2	1241.5	1222.1	1210.5
45°	1214.5	1200.9	1171.8	1150.8	1142.9
47.5°	1142.9	1129.4	1098.6	1077.2	1065.7
50°	1067.6	1058.0	1031.0	1003.9	994.2
52.5°	994.2	980.7	955.7	934.5	921.0
55°	919.1	907.4	884.3	861.1	851.5
57.5°	843.7	834.1	808.9	785.8	778.0
60°	768.3	760.8	733.8	712.4	706.7
62.5°	695.0	681.5	662.2	642.9	635.2
65°	619.8	608.2	588.9	571.5	561.8
67.5°	542.6	532.8	515.6	502.1	494.2
70°	471.1	463.4	445.9	432.4	424.8
72.5°	397.8	390.0	380.4	366.9	361.1
75°	324.2	320.6	310.7	299.3	303.2
77.5°	258.7	250.9	247.0	241.3	235.6
80°	193.2	191.1	187.2	181.5	177.6
82.5°	131.3	131.3	129.4	121.7	121.7
85°	79.0	77.2	75.3	69.4	67.6
87.5°	34.8	31.0	27.0	21.3	19.3
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	16.68	18.29	17.05	18.61	18.92	16.24	17.85	16.60	18.16	18.48
	3H	18.43	19.89	18.81	20.21	20.57	17.94	19.40	18.32	19.72	20.08
	4H	19.08	20.45	19.48	20.80	21.17	18.58	19.95	18.98	20.30	20.68
	6H	19.55	20.82	19.96	21.18	21.57	19.05	20.31	19.46	20.68	21.07
	8H	19.69	20.90	20.12	21.29	21.69	19.19	20.40	19.61	20.79	21.19
	12H	19.78	20.94	20.21	21.32	21.75	19.27	20.43	19.70	20.81	21.24
4H	2H	17.24	18.61	17.64	18.96	19.34	16.89	18.26	17.29	18.61	18.98
	3H	19.22	20.36	19.63	20.76	21.16	18.81	19.96	19.22	20.35	20.75
	4H	19.99	21.03	20.43	21.44	21.88	19.57	20.61	20.00	21.02	21.46
	6H	20.59	21.50	21.04	21.94	22.39	20.16	21.06	20.61	21.50	21.96
	8H	20.78	21.63	21.24	22.07	22.53	20.34	21.19	20.80	21.63	22.10
	12H	20.91	21.67	21.39	22.15	22.62	20.46	21.22	20.94	21.70	22.17
8H	4H	20.27	21.11	20.73	21.56	22.02	19.89	20.74	20.35	21.18	21.65
	6H	20.98	21.68	21.48	22.17	22.65	20.60	21.30	21.09	21.79	22.27
	8H	21.24	21.87	21.75	22.38	22.86	20.85	21.48	21.36	21.99	22.47
	12H	21.44	22.00	21.95	22.49	23.05	21.03	21.59	21.53	22.08	22.64
12H	4H	20.29	21.05	20.77	21.53	22.00	19.93	20.69	20.41	21.16	21.63
	6H	21.03	21.66	21.54	22.17	22.65	20.66	21.29	21.17	21.80	22.28
	8H	21.34	21.90	21.85	22.39	22.95	20.96	21.52	21.47	22.01	22.57