

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: P931353

Luminaire Tested: DFN2DS-TR3F0-050DS830-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931353
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-TR3F0-050DS830-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

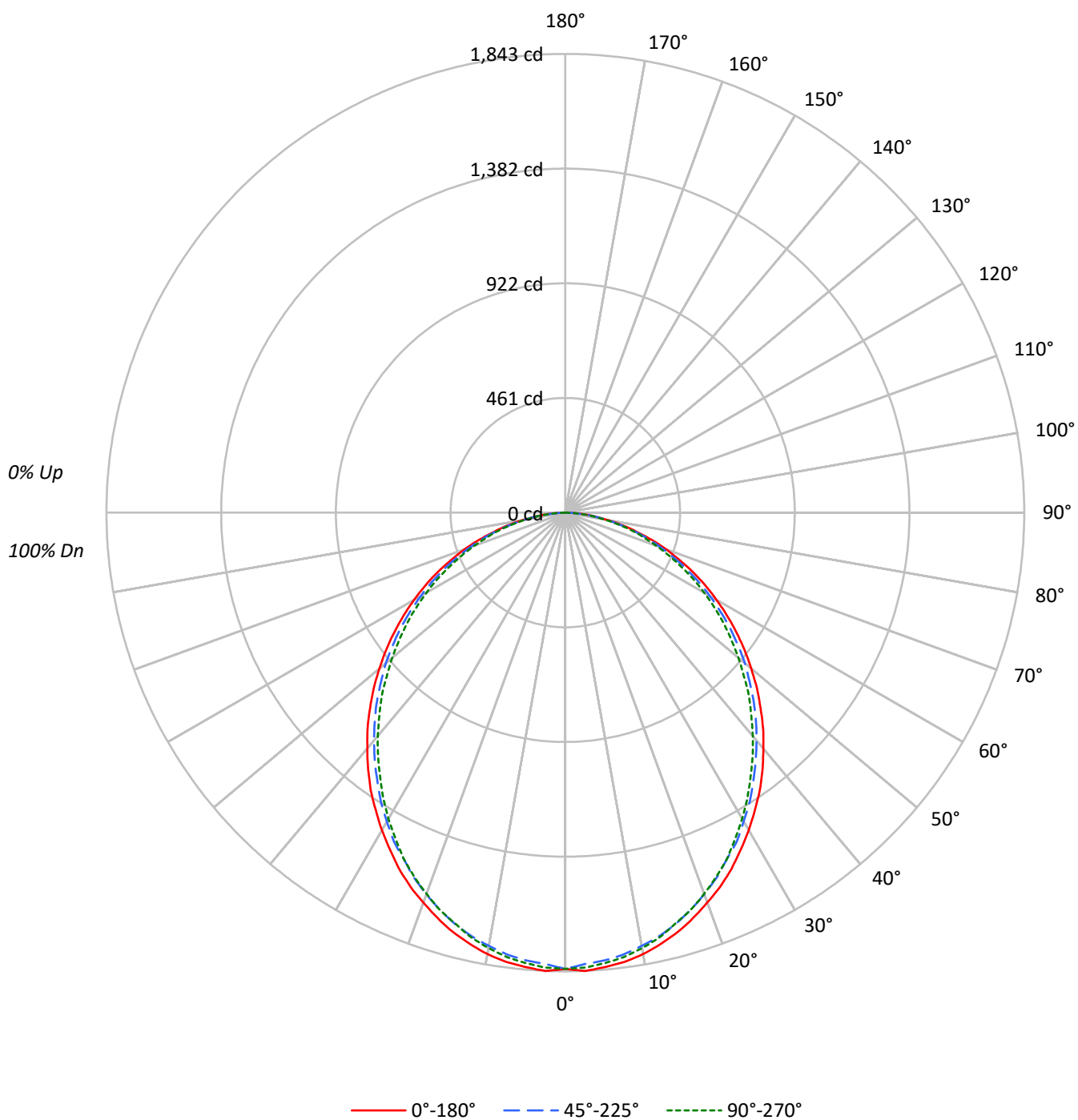
Lumens per Lamp: N/A
Luminaire Lumens: 4662.9 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9933
Total Harmonic Distortion (THDi): 0.066
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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	73	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	62	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	54	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	47	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	41	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	37	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	33	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2284	2284	2284
5°	2292	2259	2273
10°	2279	2237	2248
15°	2251	2207	2205
20°	2211	2164	2162
25°	2171	2111	2111
30°	2120	2062	2044
35°	2072	2003	1973
40°	2013	1943	1906
45°	1953	1885	1839
50°	1889	1824	1759
55°	1823	1753	1688
60°	1748	1669	1608
65°	1668	1585	1512
70°	1567	1483	1413
75°	1425	1365	1333
80°	1265	1226	1163
85°	1032	984	882

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1953 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	3.7
10°-20°	485.3	10.4
20°-30°	713.2	15.3
30°-40°	828.4	17.8
40°-50°	827.4	17.7
50°-60°	721.4	15.5
60°-70°	533.3	11.4
70°-80°	301.7	6.5
80°-90°	79.6	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°	1371.1	29.4
0°-40°	2199.4	47.2
0°-60°	3748.2	80.4
0°-90°	4662.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4662.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1833	1833	1833	1833	1833	
5°	1833	1826	1806	1820	1817	174
15°	1745	1734	1711	1718	1709	491
25°	1579	1565	1535	1538	1535	727
35°	1362	1345	1316	1306	1297	851
45°	1108	1096	1070	1050	1043	856
55°	839	828	807	786	777	750
65°	566	555	538	522	513	559
75°	296	293	284	273	277	316
85°	72	70	69	63	62	85
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1832.7	1832.7	1832.7	1832.7	1832.7
2.5°	1843.3	1834.5	1815.1	1832.7	1829.4
5°	1832.7	1825.8	1806.3	1820.3	1817.0
7.5°	1820.3	1809.9	1790.5	1804.7	1801.1
10°	1801.1	1788.8	1767.7	1781.6	1776.4
12.5°	1774.5	1764.1	1743.0	1751.7	1748.2
15°	1744.6	1734.1	1711.1	1718.3	1709.4
17.5°	1707.6	1697.1	1674.1	1682.9	1674.1
20°	1667.1	1656.6	1631.9	1637.1	1630.2
22.5°	1626.6	1610.7	1587.7	1587.7	1584.2
25°	1579.0	1564.9	1535.0	1538.4	1535.0
27.5°	1526.0	1513.7	1490.9	1485.6	1476.9
30°	1473.3	1459.2	1432.8	1427.5	1420.4
32.5°	1416.9	1406.4	1378.1	1367.5	1360.4
35°	1362.2	1344.7	1316.4	1305.8	1297.0
37.5°	1300.5	1284.7	1256.4	1244.1	1235.3
40°	1237.2	1223.0	1194.7	1179.0	1171.9
42.5°	1175.5	1161.3	1133.2	1115.4	1105.0
45°	1108.5	1096.2	1069.6	1050.4	1043.3
47.5°	1043.3	1030.9	1002.8	983.3	972.8
50°	974.5	965.7	941.1	916.4	907.5
52.5°	907.5	895.2	872.4	853.0	840.6
55°	838.9	828.3	807.1	786.0	777.2
57.5°	770.1	761.3	738.3	717.2	710.1
60°	701.3	694.4	669.8	650.3	645.1
62.5°	634.4	622.1	604.5	586.9	579.8
65°	565.8	555.1	537.5	521.7	512.8
67.5°	495.3	486.4	470.6	458.3	451.1
70°	430.0	423.0	407.0	394.7	387.8
72.5°	363.1	356.0	347.2	334.9	329.6
75°	296.0	292.6	283.6	273.2	276.8
77.5°	236.2	229.0	225.5	220.2	215.1
80°	176.3	174.5	170.9	165.7	162.1
82.5°	119.8	119.8	118.1	111.1	111.1
85°	72.2	70.5	68.8	63.4	61.7
87.5°	31.7	28.3	24.7	19.4	17.6
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	14.15	15.76	14.52	16.08	16.39	13.71	15.32	14.07	15.63	15.95
	3H	15.90	17.36	16.28	17.68	18.04	15.41	16.87	15.79	17.19	17.55
	4H	16.55	17.92	16.95	18.27	18.64	16.05	17.42	16.45	17.77	18.15
	6H	17.02	18.29	17.43	18.65	19.04	16.52	17.78	16.93	18.15	18.54
	8H	17.16	18.37	17.59	18.76	19.16	16.66	17.87	17.08	18.26	18.66
	12H	17.25	18.41	17.68	18.79	19.22	16.74	17.90	17.17	18.28	18.71
4H	2H	14.71	16.08	15.11	16.43	16.80	14.36	15.73	14.76	16.08	16.45
	3H	16.69	17.83	17.10	18.23	18.63	16.28	17.43	16.69	17.82	18.22
	4H	17.46	18.50	17.90	18.91	19.35	17.04	18.08	17.47	18.49	18.93
	6H	18.06	18.97	18.51	19.41	19.86	17.63	18.53	18.08	18.97	19.43
	8H	18.25	19.10	18.71	19.54	20.00	17.81	18.66	18.27	19.10	19.57
	12H	18.38	19.14	18.86	19.62	20.09	17.93	18.69	18.41	19.17	19.64
8H	4H	17.74	18.58	18.20	19.03	19.49	17.36	18.21	17.82	18.65	19.12
	6H	18.45	19.15	18.95	19.64	20.12	18.07	18.77	18.56	19.26	19.74
	8H	18.71	19.34	19.22	19.85	20.33	18.32	18.95	18.83	19.46	19.94
	12H	18.91	19.47	19.42	19.96	20.52	18.50	19.06	19.00	19.55	20.11
12H	4H	17.76	18.52	18.24	19.00	19.47	17.40	18.16	17.88	18.63	19.10
	6H	18.50	19.13	19.01	19.64	20.12	18.13	18.76	18.64	19.27	19.75
	8H	18.81	19.37	19.32	19.86	20.42	18.43	18.99	18.94	19.48	20.04