

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242783

Luminaire Tested: S125DRP-S1090D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242783
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S1090D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

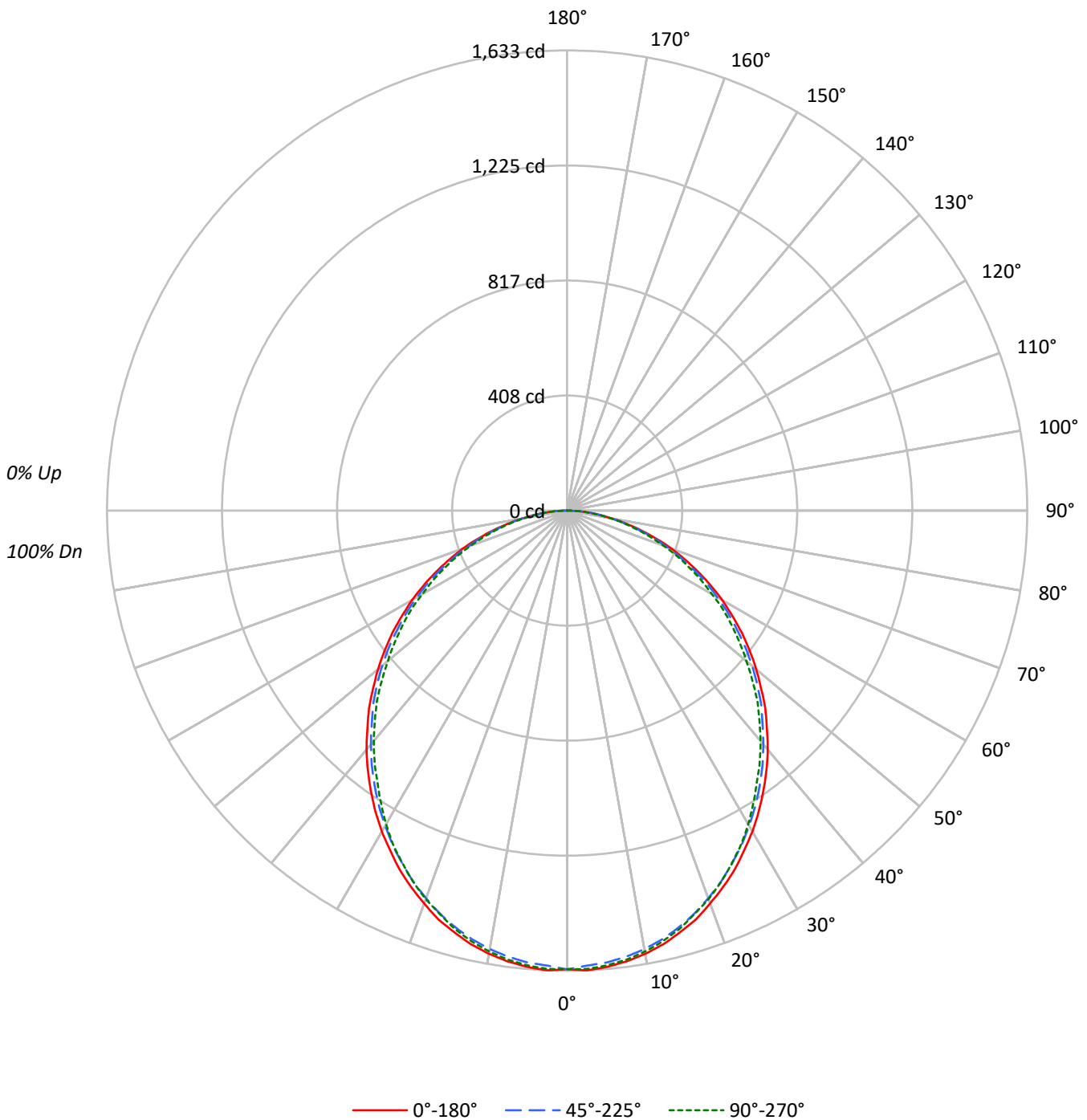
Lumens per Lamp: N/A
Luminaire Lumens: 4236.8 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11569	11569	11569
5°	11595	11485	11559
10°	11525	11404	11469
15°	11400	11267	11314
20°	11221	11075	11094
25°	11028	10846	10836
30°	10791	10601	10548
35°	10537	10335	10191
40°	10275	10049	9905
45°	9993	9786	9592
50°	9683	9469	9184
55°	9383	9111	8856
60°	9025	8751	8439
65°	8599	8316	8035
70°	8190	7813	7547
75°	7461	7214	6967
80°	6643	6536	6377
85°	5774	5880	5570

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9993 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.6	3.6
10°-20°	433.9	10.2
20°-30°	640.5	15.1
30°-40°	747.3	17.6
40°-50°	750.6	17.7
50°-60°	658.9	15.6
60°-70°	490.8	11.6
70°-80°	280.3	6.6
80°-90°	80.9	1.9
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°	1228.0	29.0
0°-40°	1975.4	46.6
0°-60°	3384.8	79.9
0°-90°	4236.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4236.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1628	1628	1628	1628	1628	
5°	1625	1623	1610	1621	1620	154
15°	1549	1545	1531	1538	1538	437
25°	1406	1400	1383	1386	1382	647
35°	1214	1209	1191	1185	1174	760
45°	994	989	974	958	954	766
55°	757	753	735	724	715	676
65°	511	509	494	483	478	507
75°	272	269	263	259	254	289
85°	71	72	72	71	68	82
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1627.8	1627.8	1627.8	1627.8	1627.8
2.5°	1633.0	1629.1	1616.2	1629.1	1627.8
5°	1625.2	1622.7	1609.8	1621.4	1620.1
7.5°	1613.6	1611.1	1596.9	1608.5	1607.2
10°	1596.9	1594.3	1580.2	1590.5	1589.2
12.5°	1576.3	1571.1	1558.3	1566.0	1566.0
15°	1549.3	1545.4	1531.2	1537.7	1537.7
17.5°	1520.9	1514.5	1500.3	1508.0	1501.6
20°	1483.6	1481.0	1464.3	1473.3	1466.8
22.5°	1446.2	1441.1	1425.6	1430.8	1426.9
25°	1406.3	1399.9	1383.1	1385.7	1381.8
27.5°	1359.9	1356.1	1339.3	1340.6	1336.8
30°	1314.9	1311.0	1291.7	1289.1	1285.3
32.5°	1265.9	1259.5	1242.8	1237.6	1229.9
35°	1214.4	1209.3	1191.2	1184.8	1174.5
37.5°	1161.6	1155.2	1138.4	1129.4	1123.0
40°	1107.5	1101.1	1083.1	1071.5	1067.6
42.5°	1049.6	1044.4	1026.4	1016.1	1009.7
45°	994.2	989.1	973.6	958.1	954.3
47.5°	933.7	935.0	915.6	900.2	891.2
50°	875.7	871.9	856.4	839.7	830.6
52.5°	816.5	813.9	797.2	783.0	772.7
55°	757.2	753.4	735.3	723.8	714.7
57.5°	694.1	692.9	677.4	661.9	658.1
60°	634.9	629.7	615.6	602.7	593.7
62.5°	573.1	569.2	557.6	543.5	537.0
65°	511.3	508.7	494.5	482.9	477.8
67.5°	450.7	445.6	435.3	425.0	422.4
70°	394.1	387.6	376.0	368.3	363.2
72.5°	332.3	328.4	322.0	312.9	307.8
75°	271.7	269.2	262.7	258.9	253.7
77.5°	215.1	213.8	209.9	207.3	203.5
80°	162.3	162.3	159.7	158.4	155.8
82.5°	115.9	113.3	113.3	110.8	110.8
85°	70.8	72.1	72.1	70.8	68.3
87.5°	34.8	34.8	33.5	33.5	30.9
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	19.86	21.47	20.22	21.79	22.10	19.53	21.15	19.89	21.46	21.77
	3H	21.63	23.09	22.00	23.41	23.77	21.26	22.72	21.64	23.05	23.41
	4H	22.28	23.66	22.68	24.01	24.38	21.91	23.28	22.30	23.63	24.01
	6H	22.76	24.04	23.17	24.40	24.79	22.39	23.67	22.80	24.03	24.42
	8H	22.92	24.13	23.34	24.52	24.92	22.55	23.77	22.98	24.16	24.56
	12H	23.02	24.19	23.45	24.57	25.00	22.66	23.83	23.09	24.21	24.64
4H	2H	20.43	21.81	20.83	22.16	22.54	20.17	21.55	20.57	21.90	22.28
	3H	22.43	23.58	22.84	23.98	24.38	22.13	23.28	22.54	23.68	24.08
	4H	23.22	24.26	23.65	24.67	25.11	22.90	23.95	23.33	24.36	24.79
	6H	23.82	24.74	24.28	25.18	25.63	23.52	24.43	23.97	24.87	25.33
	8H	24.03	24.88	24.49	25.33	25.79	23.73	24.58	24.19	25.02	25.49
	12H	24.18	24.95	24.66	25.42	25.89	23.88	24.65	24.36	25.12	25.59
8H	4H	23.50	24.36	23.96	24.80	25.26	23.22	24.08	23.68	24.52	24.99
	6H	24.23	24.94	24.73	25.43	25.91	23.96	24.67	24.46	25.16	25.64
	8H	24.51	25.15	25.02	25.65	26.14	24.25	24.88	24.76	25.39	25.88
	12H	24.74	25.31	25.25	25.80	26.36	24.48	25.05	24.99	25.54	26.10
12H	4H	23.53	24.30	24.01	24.78	25.24	23.26	24.03	23.74	24.50	24.97
	6H	24.28	24.92	24.79	25.43	25.92	24.03	24.66	24.53	25.17	25.66
	8H	24.62	25.19	25.13	25.68	26.24	24.37	24.93	24.88	25.42	25.98