

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: P243638

Luminaire Tested: S125DRP-H1090D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243638
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H1090D835-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

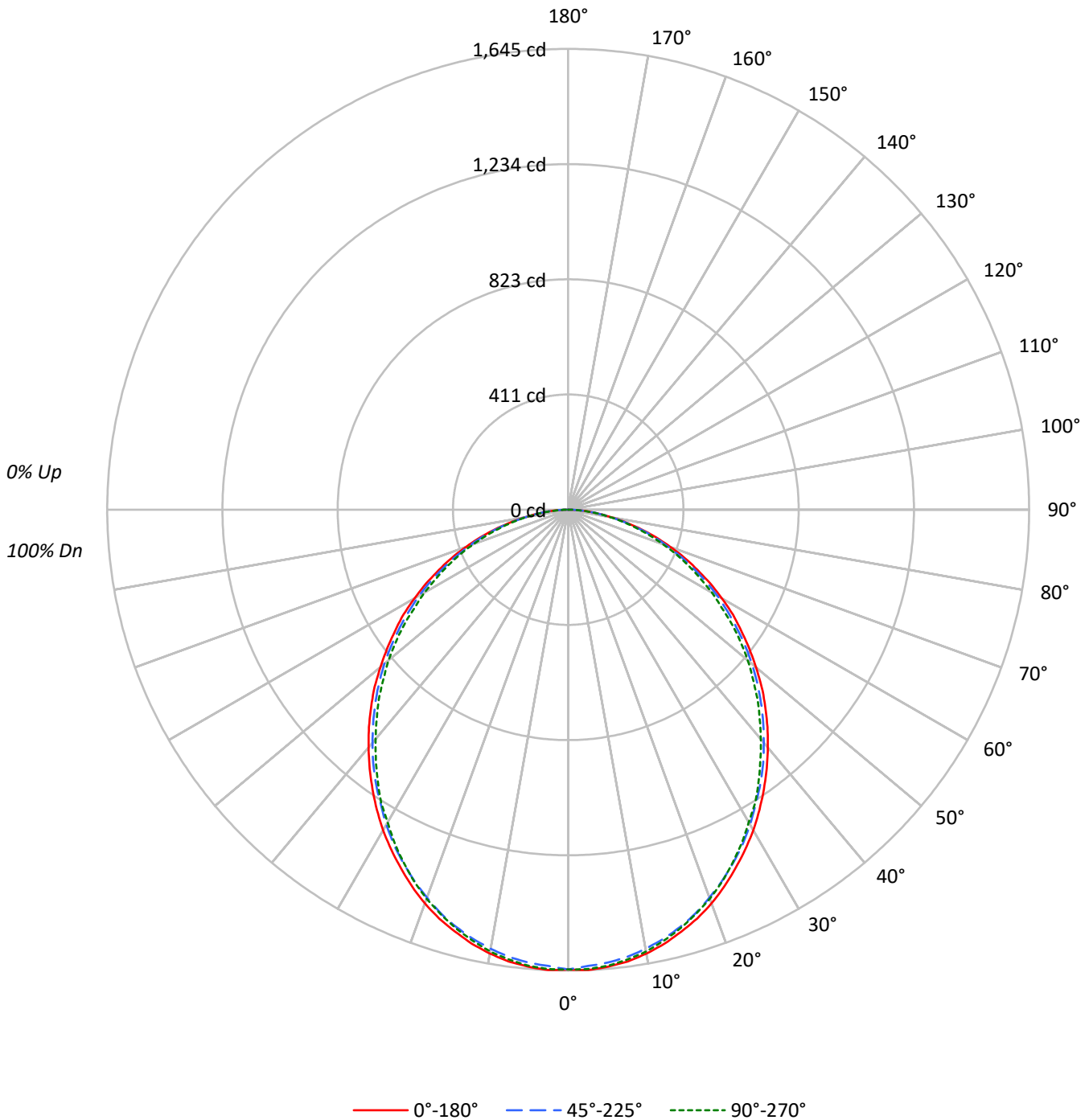
Lumens per Lamp: N/A
Luminaire Lumens: 4236.4 lumens
Efficiency: N/A
Efficacy: 134.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (Ain): 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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CATALOG NUMBER: S125DRP-H1090D835-X4F0-XX-UDD-F-W

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	95	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	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11665	11665	11665
5°	11683	11580	11658
10°	11610	11488	11558
15°	11473	11350	11385
20°	11311	11147	11174
25°	11076	10915	10897
30°	10840	10652	10574
35°	10562	10374	10280
40°	10278	10077	9920
45°	9997	9779	9598
50°	9666	9466	9254
55°	9341	9087	8847
60°	8987	8729	8421
65°	8565	8262	7978
70°	8032	7732	7481
75°	7406	7175	6843
80°	6455	6405	6258
85°	5594	5594	5301

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9997 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.8	3.7
10°-20°	436.9	10.3
20°-30°	644.1	15.2
30°-40°	750.1	17.7
40°-50°	751.6	17.7
50°-60°	657.1	15.5
60°-70°	487.6	11.5
70°-80°	276.6	6.5
80°-90°	77.5	1.8
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°	1235.8	29.2
0°-40°	1985.9	46.9
0°-60°	3394.6	80.1
0°-90°	4236.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4236.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1641	1641	1641	1641	1641	
5°	1638	1635	1623	1635	1634	155
15°	1559	1557	1542	1551	1547	440
25°	1412	1408	1392	1396	1390	651
35°	1217	1210	1196	1188	1185	762
45°	995	992	973	958	955	767
55°	754	753	733	718	714	675
65°	509	506	491	480	474	505
75°	270	265	261	256	249	286
85°	69	69	69	66	65	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1641.2	1641.2	1641.2	1641.2	1641.2
2.5°	1644.8	1642.4	1630.4	1642.4	1641.2
5°	1637.6	1635.2	1623.1	1635.2	1634.0
7.5°	1626.7	1623.1	1609.9	1621.9	1619.5
10°	1608.7	1606.3	1591.8	1601.5	1601.5
12.5°	1587.0	1583.4	1568.9	1577.4	1576.2
15°	1559.3	1556.9	1542.5	1550.9	1547.3
17.5°	1530.4	1524.4	1511.1	1518.4	1513.6
20°	1495.5	1490.7	1473.8	1479.8	1477.4
22.5°	1455.8	1449.7	1434.1	1437.7	1436.5
25°	1412.4	1407.6	1391.9	1395.6	1389.5
27.5°	1367.9	1361.8	1347.4	1347.4	1341.4
30°	1320.9	1314.9	1298.0	1298.0	1288.4
32.5°	1270.3	1265.5	1245.0	1243.8	1241.4
35°	1217.3	1210.1	1195.7	1188.4	1184.8
37.5°	1164.4	1158.3	1142.7	1133.1	1127.0
40°	1107.8	1104.2	1086.1	1077.7	1069.2
42.5°	1052.4	1048.8	1029.5	1015.1	1011.4
45°	994.6	992.2	972.9	958.5	954.9
47.5°	936.8	934.4	915.1	899.5	893.4
50°	874.2	874.2	856.1	840.5	836.9
52.5°	814.0	812.8	794.7	779.1	775.4
55°	753.8	752.6	733.3	717.6	714.0
57.5°	697.2	689.9	673.1	661.1	649.0
60°	632.2	628.5	614.1	598.4	592.4
62.5°	571.9	567.1	552.7	539.4	531.0
65°	509.3	505.7	491.3	480.4	474.4
67.5°	450.3	445.5	431.1	422.6	417.8
70°	386.5	382.9	372.1	361.2	360.0
72.5°	329.9	325.1	319.1	309.5	304.6
75°	269.7	264.9	261.3	256.5	249.2
77.5°	211.9	209.5	207.1	203.5	199.9
80°	157.7	157.7	156.5	154.1	152.9
82.5°	112.0	113.2	109.6	107.2	107.2
85°	68.6	68.6	68.6	66.2	65.0
87.5°	33.7	30.1	30.1	27.7	27.7
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	19.84	21.46	20.21	21.77	22.09	19.51	21.12	19.87	21.44	21.75
	3H	21.60	23.06	21.98	23.39	23.75	21.22	22.68	21.60	23.00	23.37
	4H	22.25	23.62	22.65	23.97	24.35	21.86	23.23	22.26	23.58	23.95
	6H	22.71	23.98	23.12	24.35	24.74	22.33	23.60	22.74	23.97	24.36
	8H	22.86	24.08	23.29	24.46	24.86	22.49	23.70	22.91	24.09	24.49
	12H	22.96	24.13	23.39	24.51	24.94	22.59	23.75	23.02	24.13	24.56
4H	2H	20.41	21.79	20.81	22.14	22.51	20.15	21.52	20.55	21.87	22.25
	3H	22.40	23.55	22.81	23.94	24.34	22.08	23.23	22.49	23.63	24.03
	4H	23.17	24.21	23.60	24.63	25.06	22.85	23.89	23.28	24.30	24.74
	6H	23.76	24.67	24.22	25.11	25.57	23.45	24.36	23.90	24.80	25.25
	8H	23.96	24.81	24.42	25.25	25.72	23.65	24.50	24.11	24.94	25.41
	12H	24.11	24.87	24.59	25.35	25.81	23.79	24.56	24.27	25.03	25.50
8H	4H	23.46	24.31	23.92	24.75	25.21	23.17	24.02	23.63	24.46	24.93
	6H	24.16	24.87	24.66	25.36	25.83	23.89	24.60	24.38	25.08	25.56
	8H	24.44	25.07	24.95	25.58	26.06	24.16	24.79	24.67	25.30	25.79
	12H	24.66	25.22	25.16	25.71	26.27	24.38	24.94	24.88	25.43	25.99
12H	4H	23.48	24.25	23.96	24.72	25.19	23.20	23.97	23.68	24.44	24.91
	6H	24.21	24.85	24.72	25.35	25.84	23.95	24.58	24.46	25.09	25.57
	8H	24.54	25.10	25.05	25.59	26.16	24.28	24.84	24.78	25.33	25.89