

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: P243746

Luminaire Tested: S125RDRP-H1090D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243746
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-66)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H1090D840-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

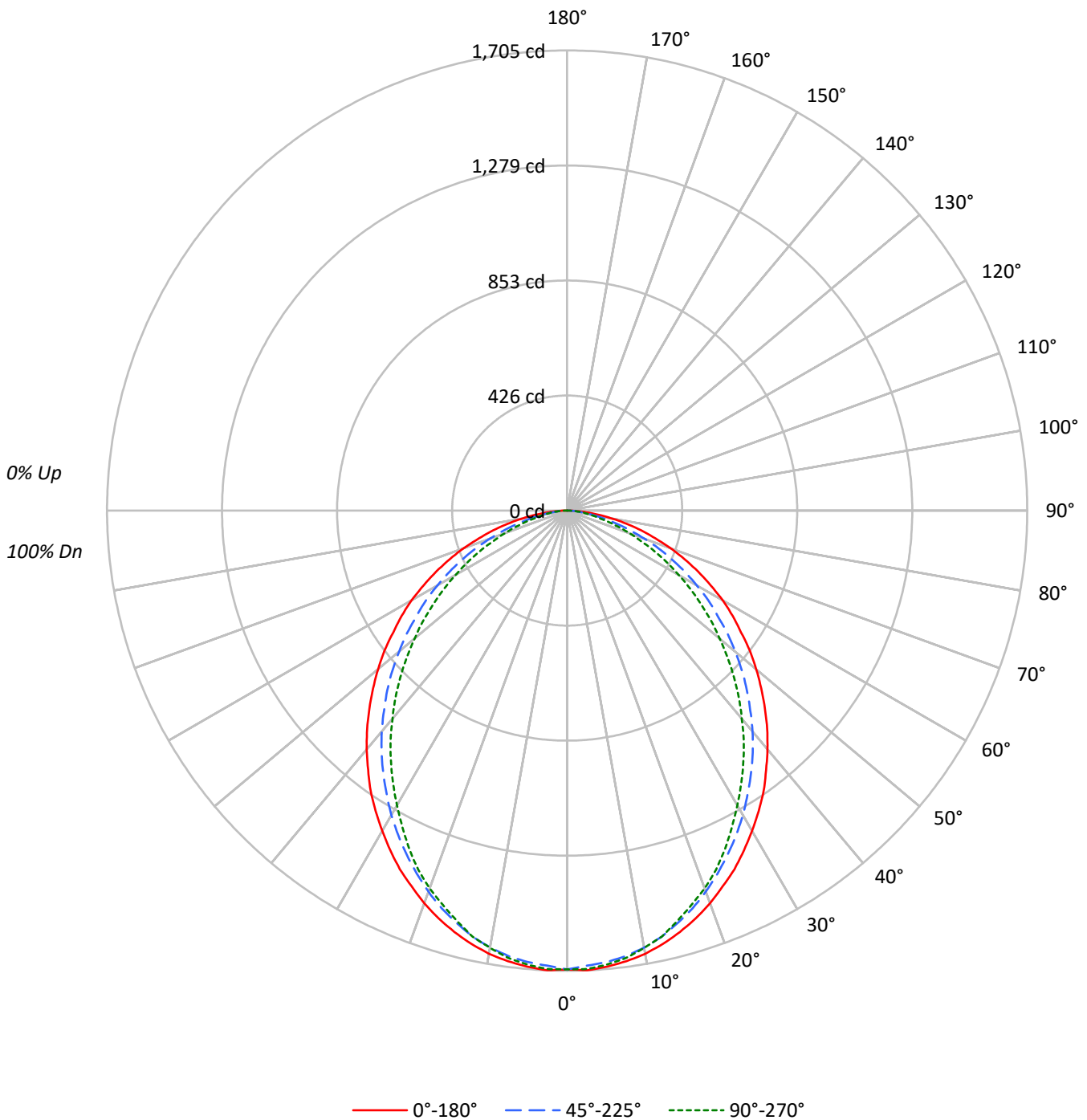
Lumens per Lamp: N/A
Luminaire Lumens: 4063.3 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (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	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12082	12082	12082
5°	12102	11981	12050
10°	12031	11865	11873
15°	11891	11640	11587
20°	11708	11367	11267
25°	11500	11033	10852
30°	11247	10688	10349
35°	11015	10308	9876
40°	10718	9916	9341
45°	10413	9472	8788
50°	10111	8982	8161
55°	9748	8437	7504
60°	9454	7882	6793
65°	8997	7218	6012
70°	8491	6317	5129
75°	7813	5275	4174
80°	6868	4081	3434
85°	5847	3368	3172

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.1	3.9
10°-20°	448.5	11.0
20°-30°	652.6	16.1
30°-40°	747.4	18.4
40°-50°	731.3	18.0
50°-60°	617.5	15.2
60°-70°	432.3	10.6
70°-80°	219.5	5.4
80°-90°	54.0	1.3
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°	1261.2	31.0
0°-40°	2008.6	49.4
0°-60°	3357.4	82.6
0°-90°	4063.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4063.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1696	1693	1679	1690	1689	161
15°	1616	1610	1582	1581	1575	456
25°	1466	1449	1407	1392	1384	675
35°	1270	1239	1188	1153	1138	793
45°	1036	1002	942	892	874	800
55°	787	753	681	626	606	706
65°	535	494	429	376	358	530
75°	284	249	192	160	152	301
85°	72	46	41	39	39	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1699.9	1699.9	1699.9	1699.9	1699.9
2.5°	1704.8	1701.2	1687.8	1699.9	1699.9
5°	1696.3	1692.6	1679.3	1690.2	1689.0
7.5°	1684.1	1680.5	1664.7	1675.6	1672.0
10°	1667.1	1662.2	1644.0	1650.1	1645.2
12.5°	1644.0	1639.1	1617.2	1619.7	1617.2
15°	1616.0	1610.0	1582.0	1580.8	1574.7
17.5°	1584.4	1575.9	1545.5	1541.9	1532.1
20°	1547.9	1537.0	1502.9	1495.7	1489.6
22.5°	1506.6	1495.7	1455.5	1444.6	1440.9
25°	1466.5	1449.4	1406.9	1392.3	1383.8
27.5°	1419.0	1399.6	1355.8	1336.4	1321.8
30°	1370.4	1348.5	1302.3	1276.8	1261.0
32.5°	1320.6	1295.0	1245.2	1213.5	1200.2
35°	1269.5	1239.1	1188.0	1152.7	1138.2
37.5°	1211.1	1180.7	1129.6	1088.3	1074.9
40°	1155.2	1123.6	1068.8	1023.9	1006.8
42.5°	1096.8	1064.0	1004.4	957.0	942.4
45°	1036.0	1002.0	942.4	892.5	874.3
47.5°	975.2	941.2	879.2	829.3	806.2
50°	914.4	877.9	812.3	761.2	738.1
52.5°	853.6	813.5	749.0	694.3	673.7
55°	786.7	752.7	680.9	626.2	605.6
57.5°	727.2	689.5	621.4	565.4	542.3
60°	665.1	623.8	554.5	499.8	477.9
62.5°	599.5	558.1	491.3	436.5	417.1
65°	535.0	493.7	429.2	375.7	357.5
67.5°	470.6	431.7	367.2	317.4	296.7
70°	408.6	368.4	304.0	259.0	246.8
72.5°	342.9	311.3	246.8	206.7	197.0
75°	284.5	249.3	192.1	160.5	152.0
77.5°	225.0	190.9	142.3	120.4	113.1
80°	167.8	138.6	99.7	86.3	83.9
82.5°	115.5	87.6	65.7	63.2	62.0
85°	71.7	46.2	41.3	38.9	38.9
87.5°	30.4	19.5	19.5	18.2	19.5
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	20.08	21.66	20.45	21.98	22.29	18.57	20.15	18.94	20.46	20.78
	3H	21.84	23.27	22.22	23.59	23.95	19.85	21.27	20.23	21.60	21.96
	4H	22.50	23.84	22.90	24.18	24.56	20.24	21.57	20.64	21.92	22.30
	6H	22.97	24.21	23.38	24.57	24.96	20.47	21.71	20.89	22.08	22.47
	8H	23.12	24.29	23.54	24.68	25.08	20.55	21.73	20.98	22.12	22.52
	12H	23.21	24.34	23.64	24.72	25.15	20.60	21.73	21.03	22.11	22.54
4H	2H	20.48	21.82	20.88	22.17	22.54	19.26	20.59	19.66	20.94	21.32
	3H	22.45	23.56	22.86	23.96	24.36	20.72	21.83	21.13	22.23	22.63
	4H	23.23	24.23	23.66	24.64	25.08	21.19	22.19	21.62	22.60	23.04
	6H	23.82	24.69	24.27	25.13	25.59	21.51	22.38	21.96	22.82	23.28
	8H	24.00	24.82	24.47	25.26	25.73	21.61	22.43	22.07	22.87	23.34
	12H	24.14	24.87	24.62	25.35	25.82	21.70	22.43	22.18	22.90	23.37
8H	4H	23.35	24.16	23.81	24.61	25.07	21.50	22.31	21.96	22.76	23.22
	6H	24.02	24.70	24.52	25.19	25.66	21.89	22.57	22.39	23.06	23.53
	8H	24.26	24.86	24.77	25.37	25.86	22.04	22.65	22.56	23.16	23.65
	12H	24.45	24.98	24.96	25.47	26.04	22.18	22.72	22.69	23.21	23.77
12H	4H	23.34	24.07	23.82	24.55	25.02	21.53	22.26	22.01	22.74	23.21
	6H	24.01	24.62	24.52	25.13	25.61	21.94	22.55	22.45	23.05	23.54
	8H	24.29	24.83	24.80	25.32	25.88	22.14	22.68	22.65	23.17	23.73