

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243712

Luminaire Tested: **S125DR-H1090D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H1090D840-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4085.2 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

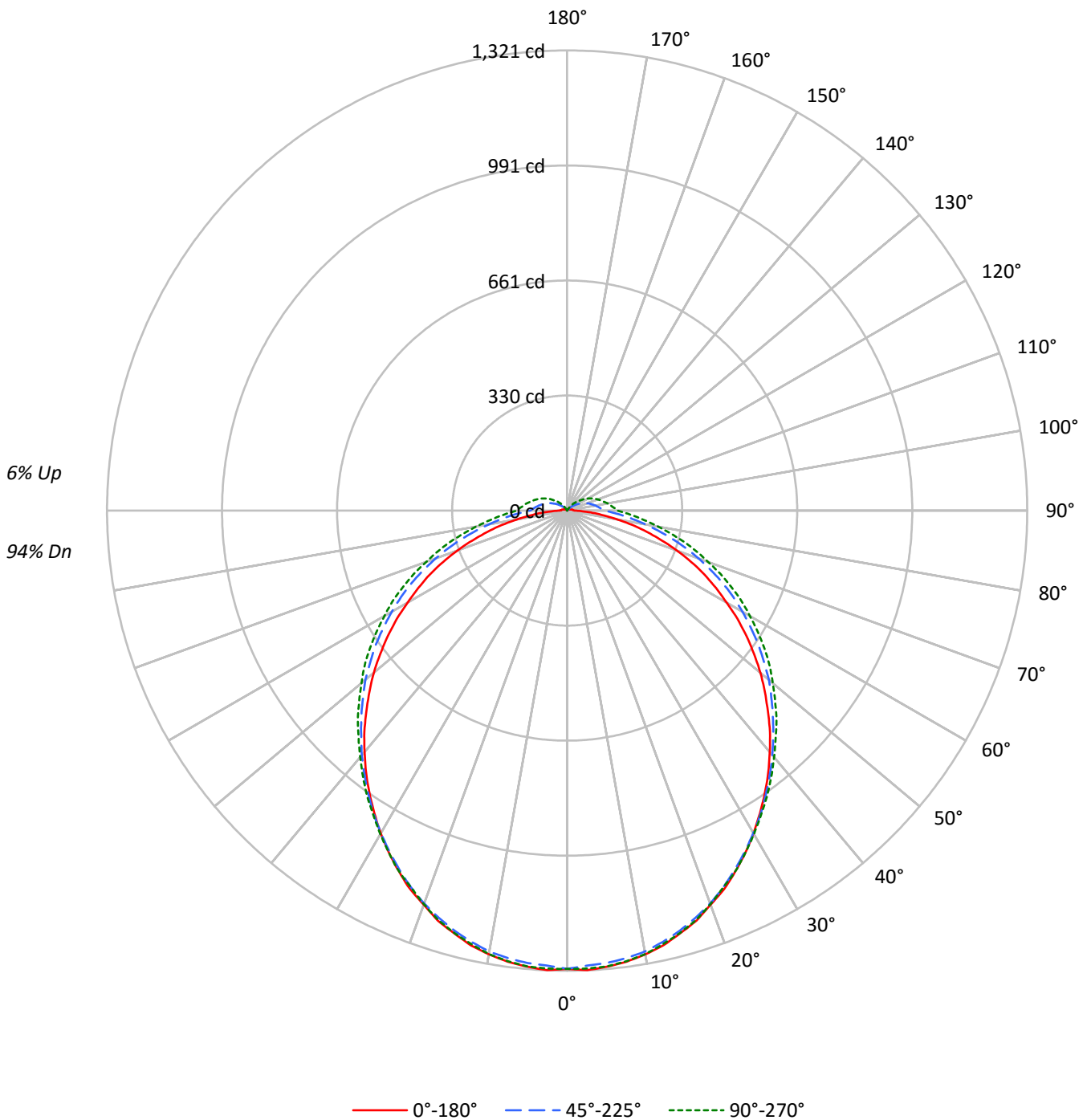
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9351	9351	9351
5°	9361	9167	9198
10°	9302	9012	8991
15°	9190	8798	8735
20°	9034	8561	8441
25°	8875	8285	8153
30°	8674	8004	7837
35°	8461	7732	7555
40°	8245	7466	7273
45°	8016	7202	7042
50°	7813	6982	6797
55°	7558	6711	6572
60°	7250	6417	6287
65°	6998	6108	6006
70°	6585	5727	5641
75°	6027	5279	5319
80°	5366	4795	4912
85°	4778	4484	4674



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	3.0
10°-20°	353.7	8.7
20°-30°	526.5	12.9
30°-40°	623.8	15.3
40°-50°	645.4	15.8
50°-60°	595.3	14.6
60°-70°	481.1	11.8
70°-80°	321.5	7.9
80°-90°	165.8	4.1
90°-100°	93.0	2.3
100°-110°	69.0	1.7
110°-120°	45.9	1.1
120°-130°	25.7	0.6
130°-140°	11.5	0.3
140°-150°	2.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1004.7	24.6
0°-40°	1628.5	39.9
0°-60°	2869.2	70.2
0°-90°	3837.6	93.9
90°-120°	207.9	5.1
90°-150°	247.6	6.1
90°-180°	248.0	6.1
0°-180°	4085.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1316	1316	1316	1316	1316	
5°	1314	1313	1304	1313	1313	125
15°	1256	1260	1249	1256	1255	354
25°	1143	1148	1138	1144	1143	526
35°	990	997	995	1000	1001	619
45°	815	828	835	849	850	629
55°	629	648	670	686	692	562
65°	435	461	492	514	520	429
75°	237	272	311	338	348	252
85°	73	114	159	187	197	75
90°	21	61	106	135	145	14
95°	17	51	94	122	130	13
105°	12	33	72	97	106	13
115°	8	17	50	73	82	8
125°	5	5	29	47	56	5
135°	2	2	11	28	33	2
145°	1	0	0	7	11	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CATALOG NUMBER: S125DR-H1090D840-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315.7	1315.7	1315.7	1315.7	1315.7
2.5°	1320.6	1316.9	1307.2	1316.9	1315.7
5°	1314.5	1313.3	1303.5	1313.3	1313.3
7.5°	1306.0	1304.7	1296.2	1306.0	1304.7
10°	1293.8	1293.8	1285.3	1292.6	1292.6
12.5°	1278.0	1278.0	1268.3	1276.8	1274.3
15°	1256.1	1259.8	1248.8	1256.1	1254.9
17.5°	1234.2	1234.2	1225.7	1231.8	1231.8
20°	1203.8	1208.7	1200.2	1206.3	1202.6
22.5°	1177.1	1179.5	1171.0	1177.1	1171.0
25°	1143.0	1147.9	1138.2	1144.2	1143.0
27.5°	1107.8	1111.4	1104.1	1111.4	1107.8
30°	1070.1	1073.7	1068.8	1073.7	1072.5
32.5°	1029.9	1037.2	1033.6	1037.2	1036.0
35°	989.8	997.1	994.7	999.5	1000.8
37.5°	948.5	955.8	955.8	961.8	963.1
40°	904.7	914.4	916.8	925.4	924.1
42.5°	862.1	871.9	875.5	886.4	886.4
45°	814.7	828.1	835.4	848.8	850.0
47.5°	769.7	784.3	795.2	807.4	809.8
50°	724.7	738.1	756.3	768.5	770.9
52.5°	676.1	693.1	711.3	728.4	733.2
55°	628.7	648.1	670.0	685.8	691.9
57.5°	580.0	600.7	625.0	644.5	649.3
60°	529.0	553.3	581.2	600.7	605.6
62.5°	481.5	508.3	537.5	558.1	565.4
65°	435.3	460.9	492.5	514.4	520.4
67.5°	385.5	413.4	446.3	470.6	476.7
70°	335.6	366.0	401.3	424.4	430.5
72.5°	284.5	318.6	356.3	381.8	389.1
75°	237.1	272.4	311.3	338.0	347.8
77.5°	192.1	228.6	267.5	295.5	304.0
80°	147.1	184.8	227.4	256.6	265.1
82.5°	107.0	147.1	190.9	220.1	228.6
85°	73.0	114.3	159.3	187.3	197.0
87.5°	45.0	85.1	131.3	159.3	169.0
90°	20.7	60.8	105.8	135.0	144.7
92.5°	18.2	55.9	99.7	128.9	137.4
95°	17.0	51.1	93.6	121.6	130.1
97.5°	15.8	46.2	87.6	115.5	124.0
100°	14.6	41.3	82.7	109.4	117.9
102.5°	13.4	37.7	76.6	103.4	110.7
105°	12.2	32.8	71.7	97.3	105.8
107.5°	10.9	28.0	66.9	91.2	99.7
110°	9.7	24.3	60.8	85.1	93.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.5	20.7	55.9	79.0	87.6
115°	8.5	17.0	49.9	73.0	81.5
117.5°	7.3	13.4	43.8	66.9	75.4
120°	6.1	9.7	38.9	60.8	69.3
122.5°	6.1	7.3	34.0	54.7	63.2
125°	4.9	4.9	29.2	47.4	55.9
127.5°	4.9	3.6	24.3	42.6	48.6
130°	3.6	2.4	20.7	37.7	43.8
132.5°	3.6	2.4	15.8	32.8	38.9
135°	2.4	2.4	10.9	28.0	32.8
137.5°	2.4	1.2	7.3	21.9	28.0
140°	1.2	1.2	2.4	17.0	21.9
142.5°	1.2	1.2	1.2	12.2	17.0
145°	1.2	0.0	0.0	7.3	10.9
147.5°	1.2	0.0	0.0	2.4	6.1
150°	0.0	0.0	0.0	0.0	1.2
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)