

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: P243708

Luminaire Tested: **S125DR-H1270D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243708  
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-H1270D835-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4725.6 lumens  
Efficiency: N/A  
Efficacy: 125.3 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

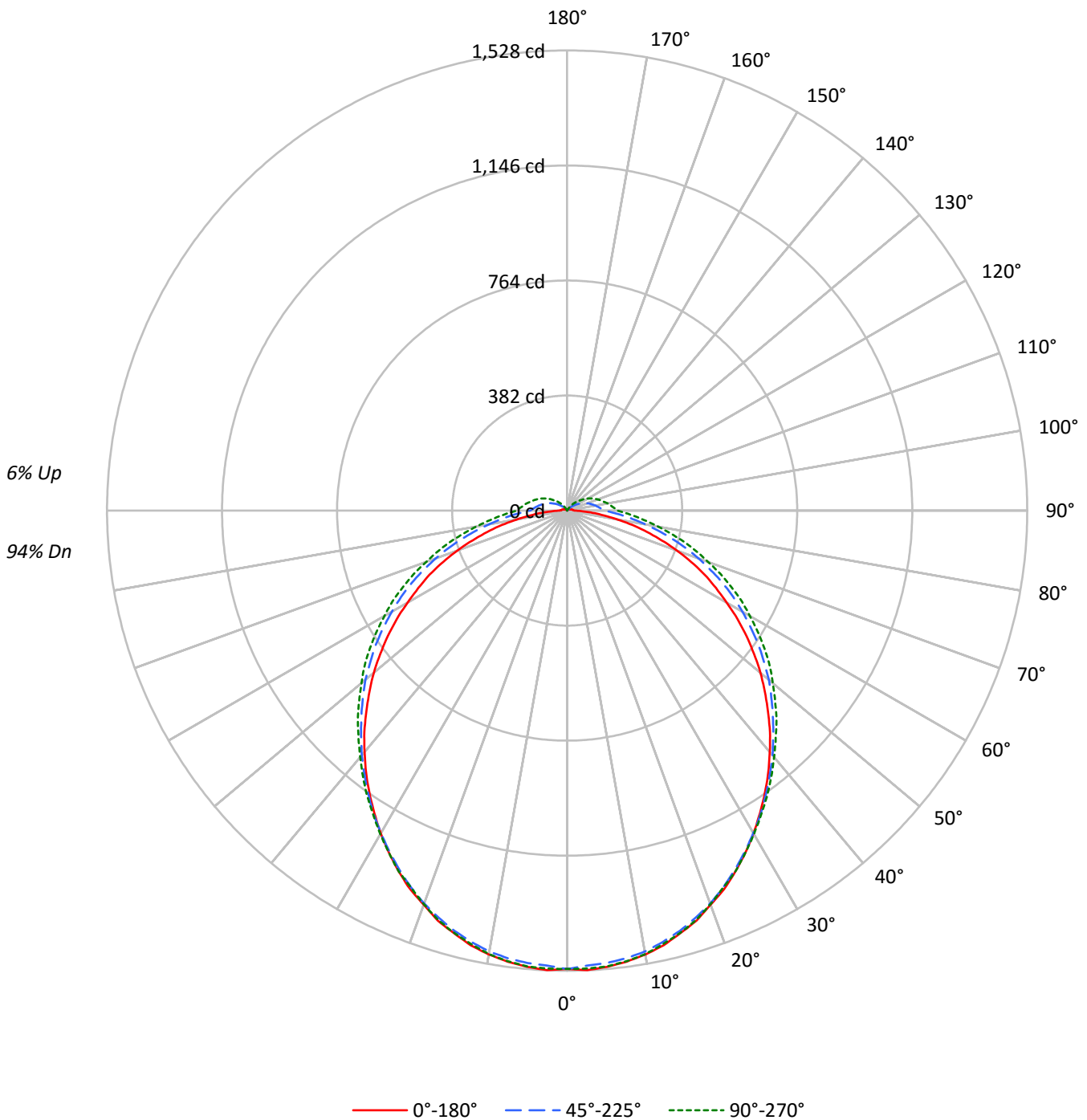
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	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°	10817	10817	10817
5°	10828	10604	10640
10°	10760	10425	10400
15°	10630	10177	10104
20°	10451	9902	9764
25°	10266	9583	9431
30°	10034	9260	9065
35°	9787	8944	8739
40°	9537	8637	8413
45°	9273	8330	8146
50°	9038	8076	7863
55°	8742	7763	7603
60°	8386	7424	7272
65°	8096	7066	6947
70°	7617	6625	6525
75°	6973	6106	6152
80°	6209	5545	5680
85°	5525	5188	5407



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.0	3.0
10°-20°	409.2	8.7
20°-30°	609.1	12.9
30°-40°	721.6	15.3
40°-50°	746.6	15.8
50°-60°	688.6	14.6
60°-70°	556.5	11.8
70°-80°	371.9	7.9
80°-90°	191.8	4.1
90°-100°	107.6	2.3
100°-110°	79.8	1.7
110°-120°	53.1	1.1
120°-130°	29.7	0.6
130°-140°	13.3	0.3
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1162.2	24.6
0°-40°	1883.8	39.9
0°-60°	3319.0	70.2
0°-90°	4439.2	93.9
90°-120°	240.6	5.1
90°-150°	286.4	6.1
90°-180°	286.0	6.1
0°-180°	4725.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1521	1519	1508	1519	1519	144
15°	1453	1457	1445	1453	1452	410
25°	1322	1328	1317	1324	1322	609
35°	1145	1153	1151	1156	1158	716
45°	942	958	966	982	983	728
55°	727	750	775	793	800	650
65°	504	533	570	595	602	497
75°	274	315	360	391	402	291
85°	84	132	184	217	228	87
90°	24	70	122	156	167	17
95°	20	59	108	141	150	16
105°	14	38	83	112	122	15
115°	10	20	58	84	94	9
125°	6	6	34	55	65	5
135°	3	3	13	32	38	2
145°	1	0	0	8	13	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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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1522.0	1522.0	1522.0	1522.0	1522.0
2.5°	1527.6	1523.4	1512.1	1523.4	1522.0
5°	1520.6	1519.1	1507.9	1519.1	1519.1
7.5°	1510.7	1509.3	1499.5	1510.7	1509.3
10°	1496.6	1496.6	1486.8	1495.2	1495.2
12.5°	1478.4	1478.4	1467.1	1476.9	1474.1
15°	1453.0	1457.3	1444.6	1453.0	1451.6
17.5°	1427.7	1427.7	1417.9	1424.9	1424.9
20°	1392.6	1398.2	1388.3	1395.4	1391.1
22.5°	1361.6	1364.4	1354.6	1361.6	1354.6
25°	1322.2	1327.8	1316.6	1323.6	1322.2
27.5°	1281.4	1285.6	1277.2	1285.6	1281.4
30°	1237.8	1242.0	1236.4	1242.0	1240.6
32.5°	1191.4	1199.8	1195.6	1199.8	1198.4
35°	1145.0	1153.4	1150.6	1156.2	1157.6
37.5°	1097.2	1105.6	1105.6	1112.6	1114.0
40°	1046.5	1057.8	1060.6	1070.4	1069.0
42.5°	997.3	1008.5	1012.8	1025.4	1025.4
45°	942.4	957.9	966.3	981.8	983.2
47.5°	890.4	907.3	919.9	934.0	936.8
50°	838.3	853.8	874.9	889.0	891.8
52.5°	782.1	801.8	822.9	842.6	848.2
55°	727.2	749.7	775.0	793.3	800.4
57.5°	671.0	694.9	723.0	745.5	751.1
60°	611.9	640.0	672.4	694.9	700.5
62.5°	557.0	588.0	621.7	645.6	654.1
65°	503.6	533.1	569.7	595.0	602.0
67.5°	445.9	478.3	516.2	544.4	551.4
70°	388.2	423.4	464.2	490.9	497.9
72.5°	329.1	368.5	412.1	441.7	450.1
75°	274.3	315.1	360.1	391.0	402.3
77.5°	222.2	264.4	309.5	341.8	351.7
80°	170.2	213.8	263.0	296.8	306.6
82.5°	123.8	170.2	220.8	254.6	264.4
85°	84.4	132.2	184.3	216.6	227.9
87.5°	52.0	98.5	151.9	184.3	195.5
90°	23.9	70.3	122.4	156.1	167.4
92.5°	21.1	64.7	115.3	149.1	158.9
95°	19.7	59.1	108.3	140.7	150.5
97.5°	18.3	53.5	101.3	133.6	143.5
100°	16.9	47.8	95.7	126.6	136.4
102.5°	15.5	43.6	88.6	119.6	128.0
105°	14.1	38.0	83.0	112.5	122.4
107.5°	12.7	32.4	77.4	105.5	115.3
110°	11.3	28.1	70.3	98.5	108.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	9.8	23.9	64.7	91.4	101.3
115°	9.8	19.7	57.7	84.4	94.2
117.5°	8.4	15.5	50.6	77.4	87.2
120°	7.0	11.3	45.0	70.3	80.2
122.5°	7.0	8.4	39.4	63.3	73.1
125°	5.6	5.6	33.8	54.9	64.7
127.5°	5.6	4.2	28.1	49.2	56.3
130°	4.2	2.8	23.9	43.6	50.6
132.5°	4.2	2.8	18.3	38.0	45.0
135°	2.8	2.8	12.7	32.4	38.0
137.5°	2.8	1.4	8.4	25.3	32.4
140°	1.4	1.4	2.8	19.7	25.3
142.5°	1.4	1.4	1.4	14.1	19.7
145°	1.4	0.0	0.0	8.4	12.7
147.5°	1.4	0.0	0.0	2.8	7.0
150°	0.0	0.0	0.0	0.0	1.4
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)